

Arizona State Retirement System Board



International Equity Asset Class

Gary R. Dokes, Chief Investment Officer
Dan Kapanak, Manager of Investment Strategy
Terry A. Dennison, Mercer Investment Consulting

April 20, 2007

Presentation Topics

- **International Equity Manager Reviews (aggregate)**
 - Asset Class Snapshot
 - Mandates Overview
 - Risk/Return Bubble Chart
 - Overview Risk Parameters
 - Alpha
 - Information Ratio
 - Positions
 - Style Analysis
 - Economic Sectors
 - Country/Currency Exposure

- **International Equity Manager Reviews (individual)**
 - Qualitative Factors: People, Philosophy, Process
 - Performance Analysis (Returns – Based)
 - Alpha
 - Information Ratio
 - Peer Review
 - Positions (Holdings – Based)
 - Style Analysis
 - Economic Sectors
 - Country/Currency Exposure

ASRS International Equity Asset Class (Aggregate)

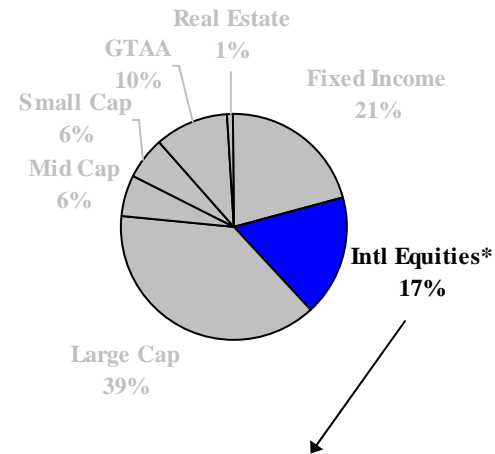
ASRS International Equity Asset Class

December 31, 2006

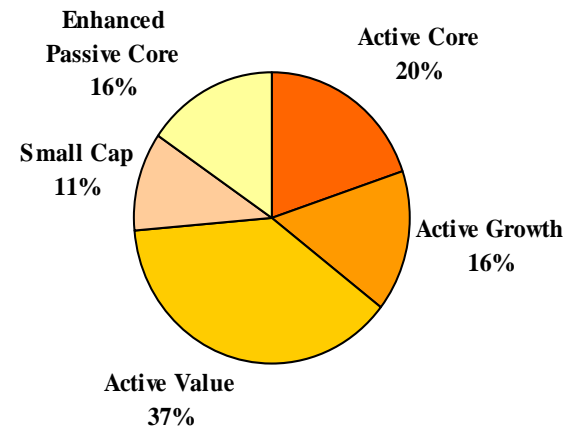
- Market Value: \$4.5b
- Passive Percent: 16%
 - Target 10% \pm 5%
- Active Style Composition:
 - Core: 23%
 - Growth: 19%
 - Value: 45%
 - Small Cap: 13%
- Portfolios:
 - 1 Enhanced Passive
 - 5 Active:
 - Quantitative: 2
 - Fundamental: 3
- Average Fee: 38bp

* The International Equity asset class excludes GTAA International allocations.

Total Fund
\$26.3 billion



Style Composition



ASRS International Equity Managers

Mandates Overview

December 31, 2006

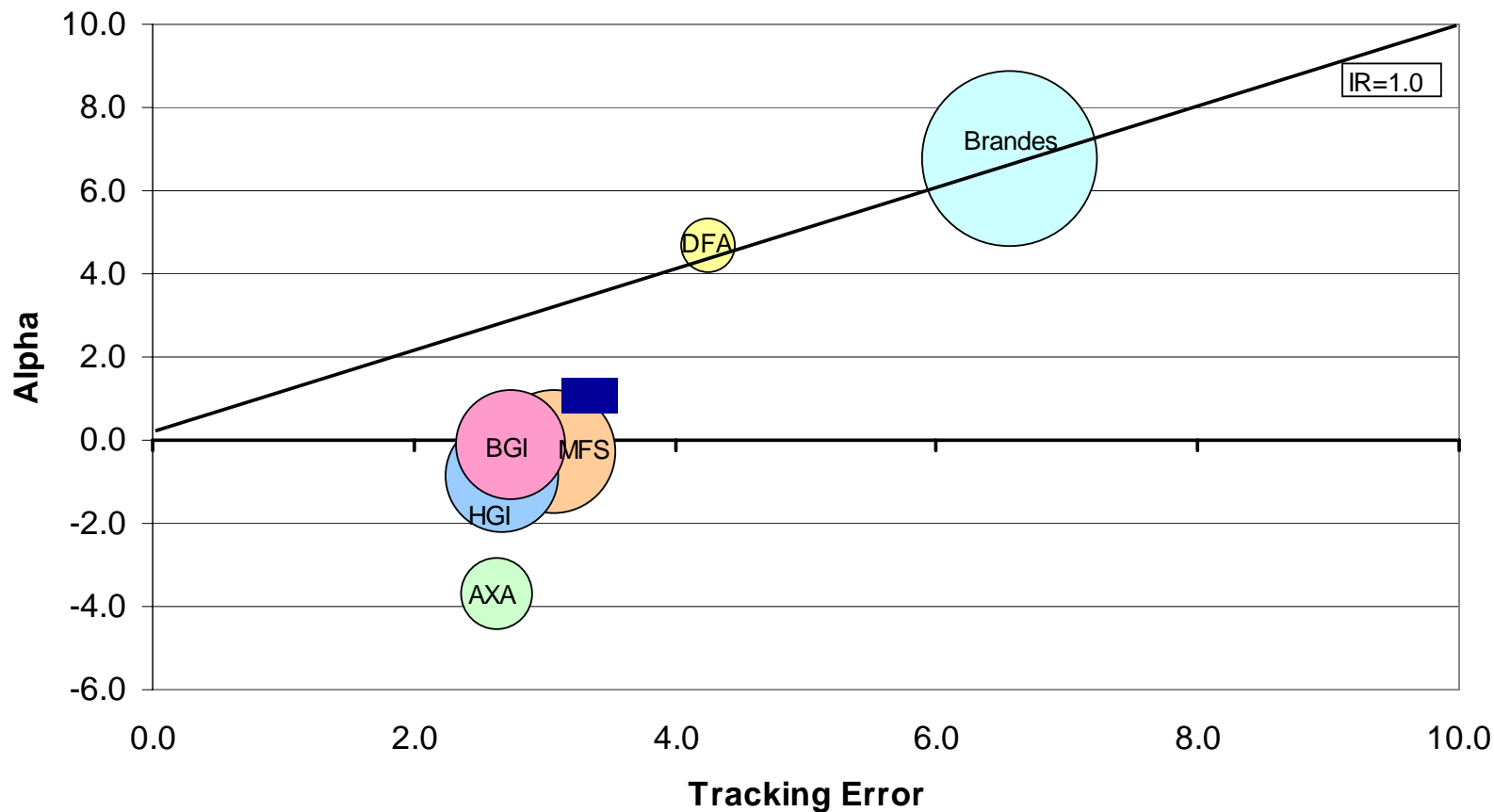
Manager	Style	Benchmark	Inception	Expected Alpha (bp)	Portfolio Assets (\$mil)	Strategy Assets (\$mil) ¹
Large Cap						
Brandes (Active)	Value	MSCI ACWI ex-U.S.	9/30/98	250	\$ 1,714	\$51,305
MFS (Active)	Core/ Growth	MSCI ACWI ex-U.S.	7/31/05	200	\$888	\$16,809
Hansberger (Active)	Growth	MSCI ACWI ex-U.S.	7/31/05	300	\$713	\$ 9,543
BGI (Enh. Passive)	Core	MSCI ACWI ex-U.S.	9/30/05	100	\$702	\$63,359
Small Cap						
AXA Rosenberg (Active)	Small Cap	MSCI EAFE Small Cap	8/31/05	400	\$315	\$7,000
DFA (Active)	Small Cap	MSCI EAFE Small Cap	8/31/05	300	\$172	\$7,124

¹ As of December 31, 2006

Risk/Return Bubble Chart

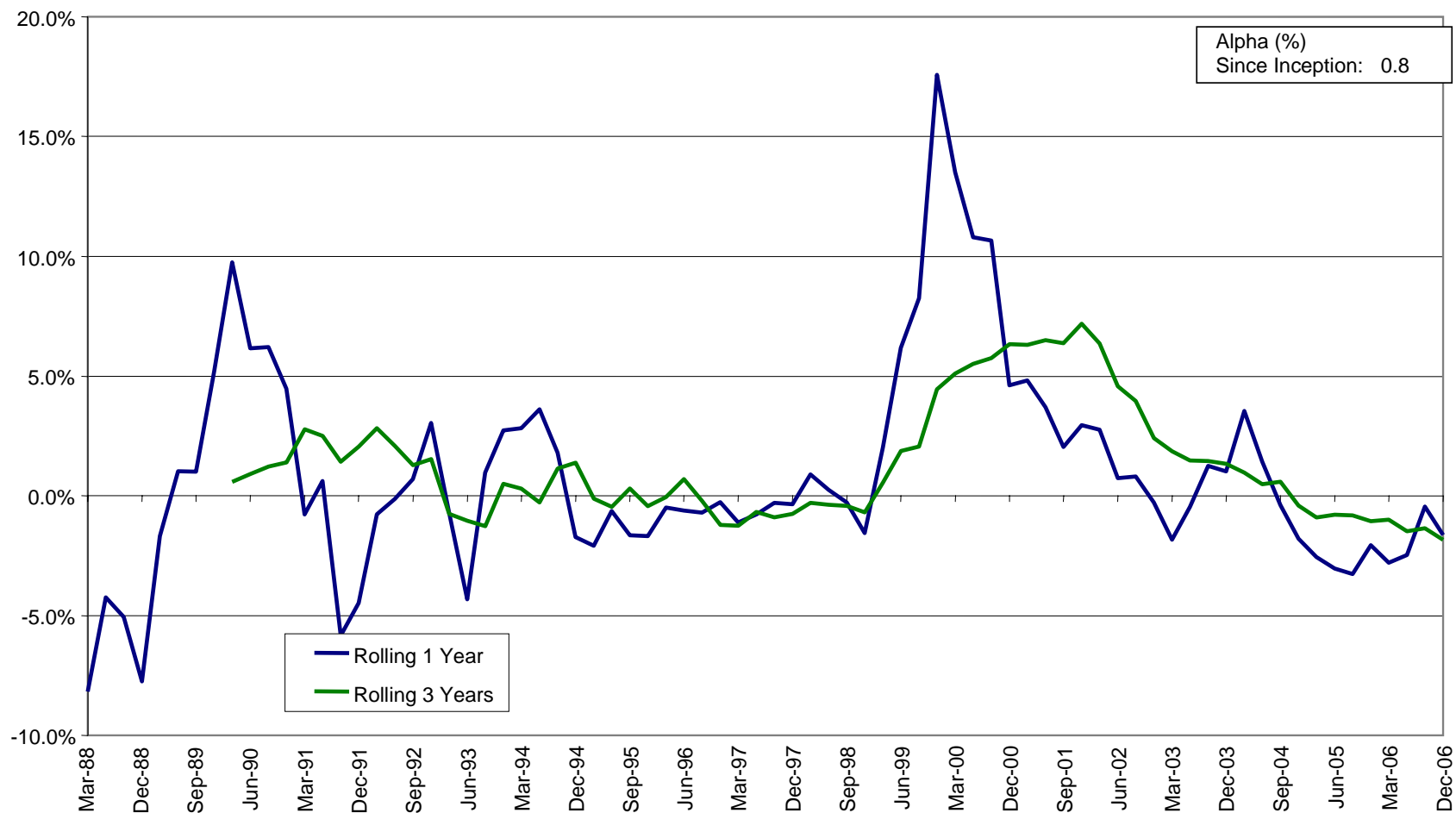
ASRS International Equity Asset Class

Inception Date – Period Ending December 31, 2006



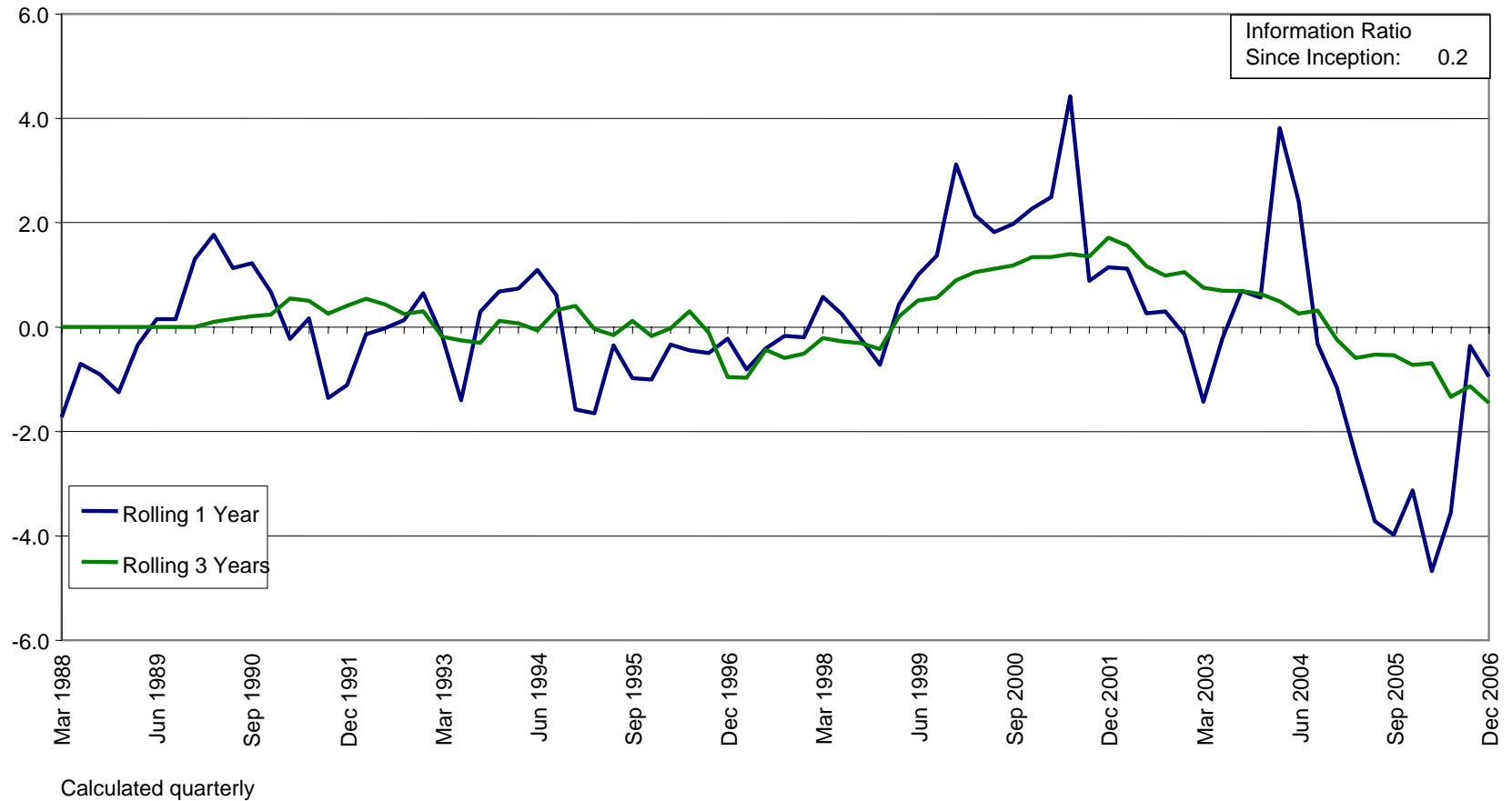
	Manager	Portfolio Size	Inception	Alpha	Tracking Error	Information Ratio
	Brandes	\$ 1,713.8	9/30/1998	7.5	7.5	1.0
	MFS	\$ 888.5	7/31/2005	-0.3	3.1	-0.1
	Hansberger	\$ 712.8	7/31/2005	-0.9	2.7	-0.3
	BGI ACWI	\$ 701.7	9/30/2005	-0.3	2.7	-0.1
	AXA	\$ 314.5	8/31/2005	-3.7	2.6	-1.4
	DFA	\$ 171.5	8/31/2005	4.7	4.3	1.1
	Asset Class	\$ 4,502.8	4/30/1987	0.8	3.7	0.2

Alpha
ASRS International Equity Asset Class
Inception Date - Period Ending December 31, 2006

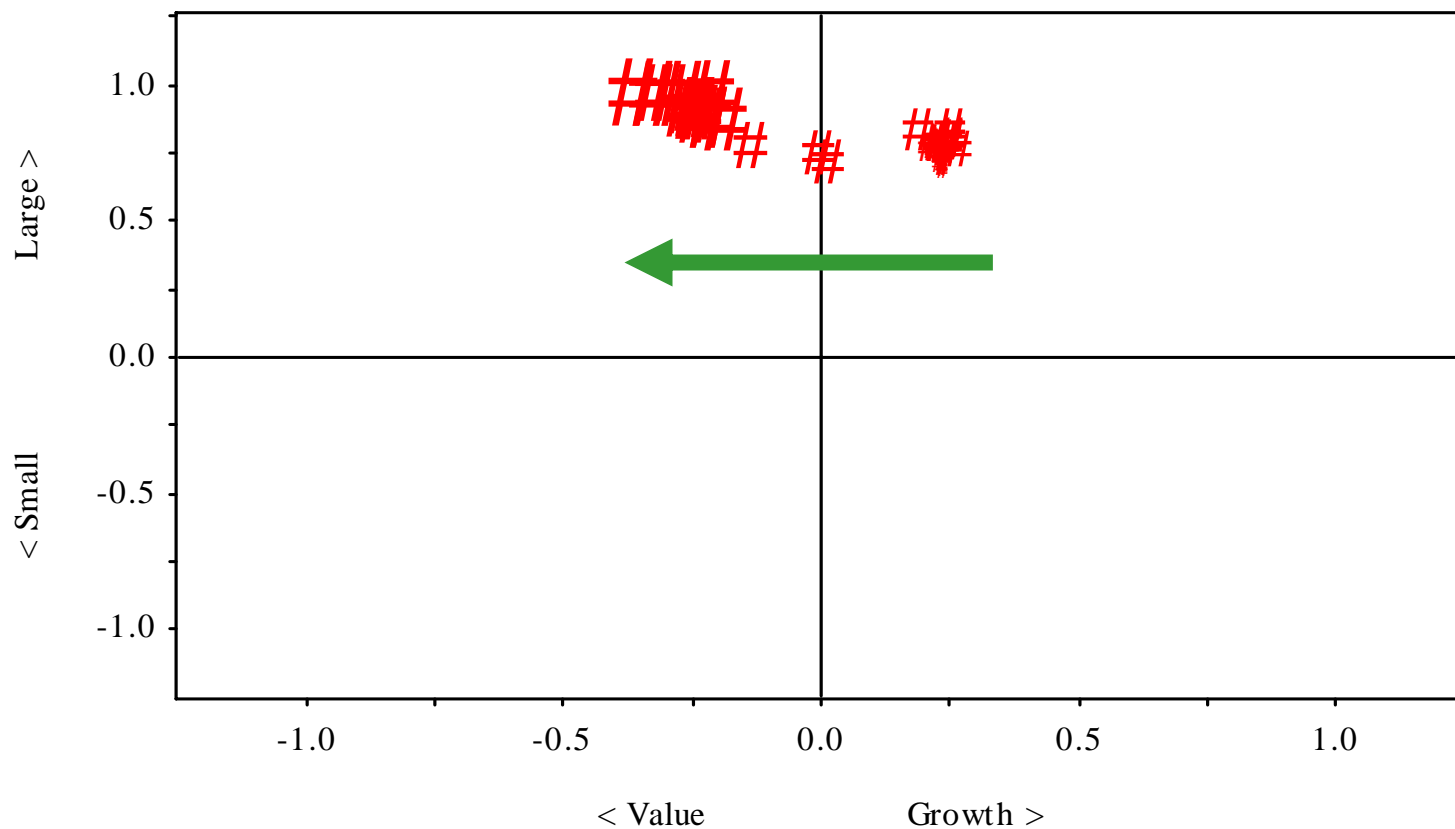


Calculated quarterly

Information Ratio
ASRS International Equity Asset Class
Inception Date - Period Ending December 31, 2006



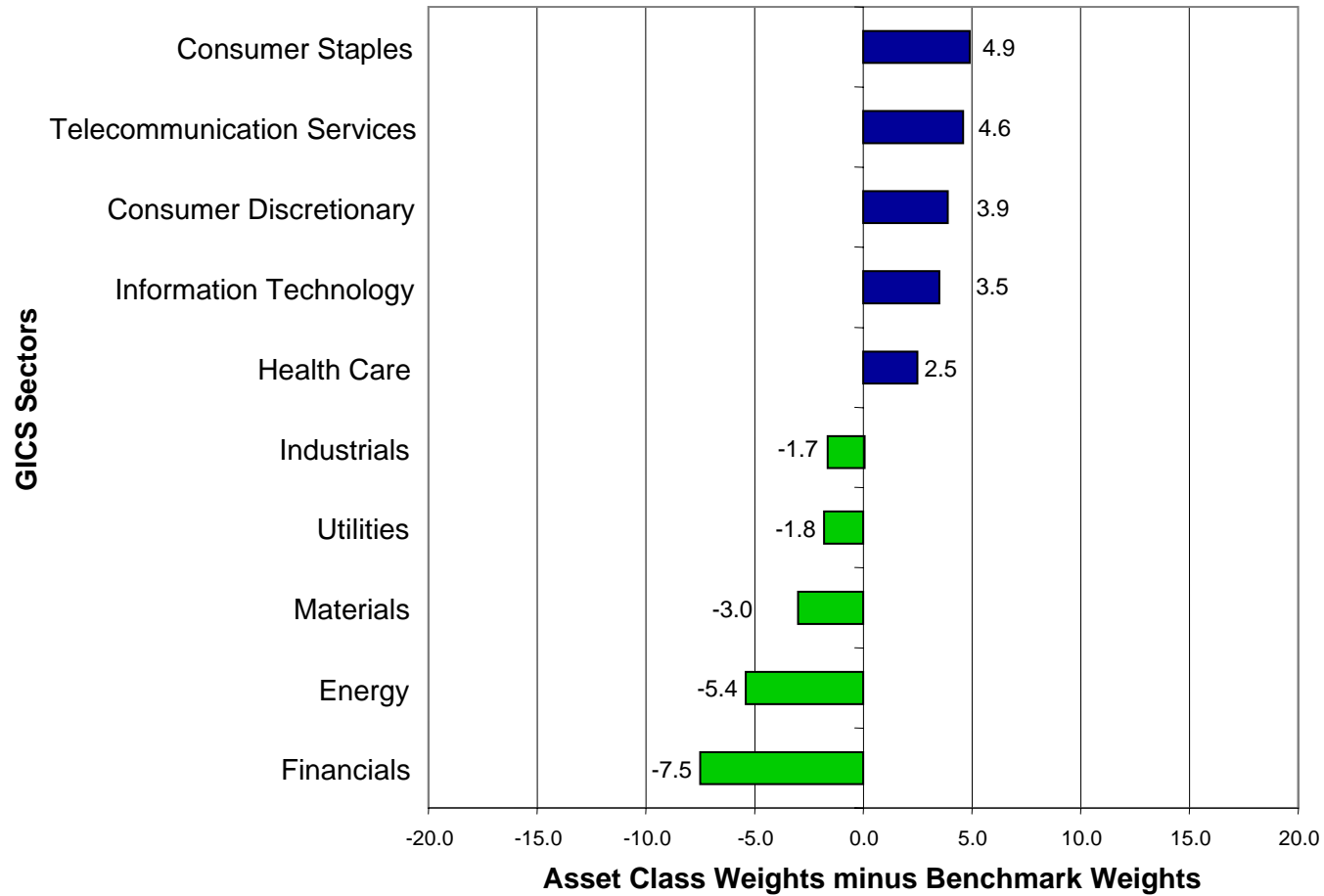
Positions: Style Analysis
ASRS International Equity Asset Class
10-Year Period Ending December 31, 2006



Non U.S. Equity Composite

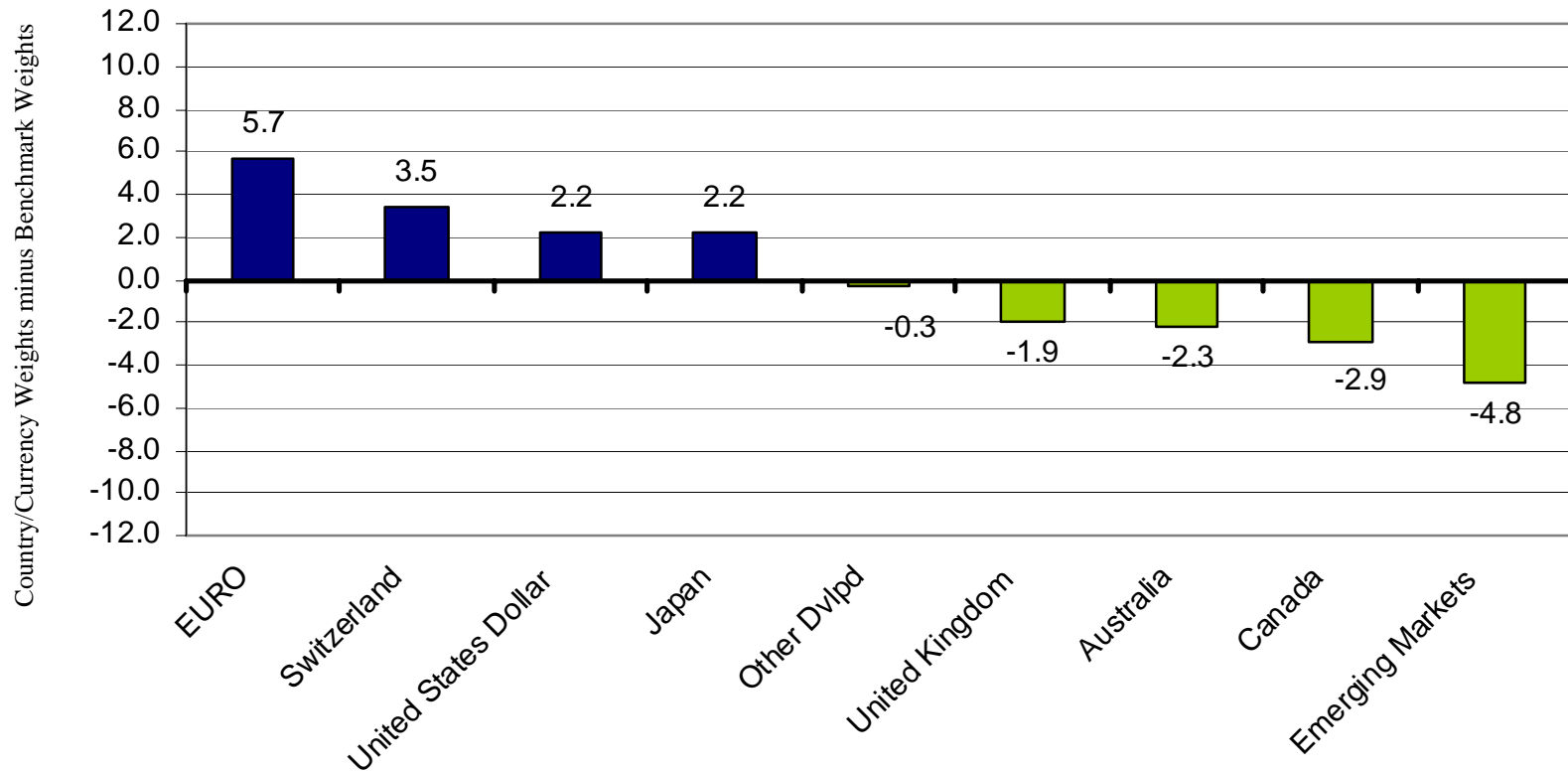
60 Month Rolling Window

Positions: Economic Sectors
ASRS International Equity Asset Class
As of December 31, 2006



Reflects all passive and active portfolio

Positions: Country/Currency Exposure
ASRS International Equity Asset Class
As of December 31, 2006



International Equity Manager Reviews (Individual)

Brandes Investment Partners

Qualitative Factors

Factors	Description
People	<ul style="list-style-type: none"> • Investment Committee responsible for investment decisions. • Stable team, low turnover among investment professionals.
Philosophy	<ul style="list-style-type: none"> • Believe that buying businesses at a discount to the firm's estimate of their true value should produce positive long-term results. • Bottom-up, Graham & Dodd, value-oriented investment manager.
Process	<ul style="list-style-type: none"> • Initial candidates are identified by analysts through research reports, outside contacts, screens for low valuation ratios, regulatory filings, brokerage research, etc. • Candidates are reviewed with the primary emphasis on financials statement analysis. • Weightings for sectors, regions, etc. result from individual companies trading at significant discounts to the firm's estimate of their intrinsic value, although there are limits to reduce risk and ensure diversification. • Brandes has a more concentrated portfolio, which results in higher tracking error. • Low portfolio turnover given long-term investment horizon.

Alpha

Brandes Investment Partners

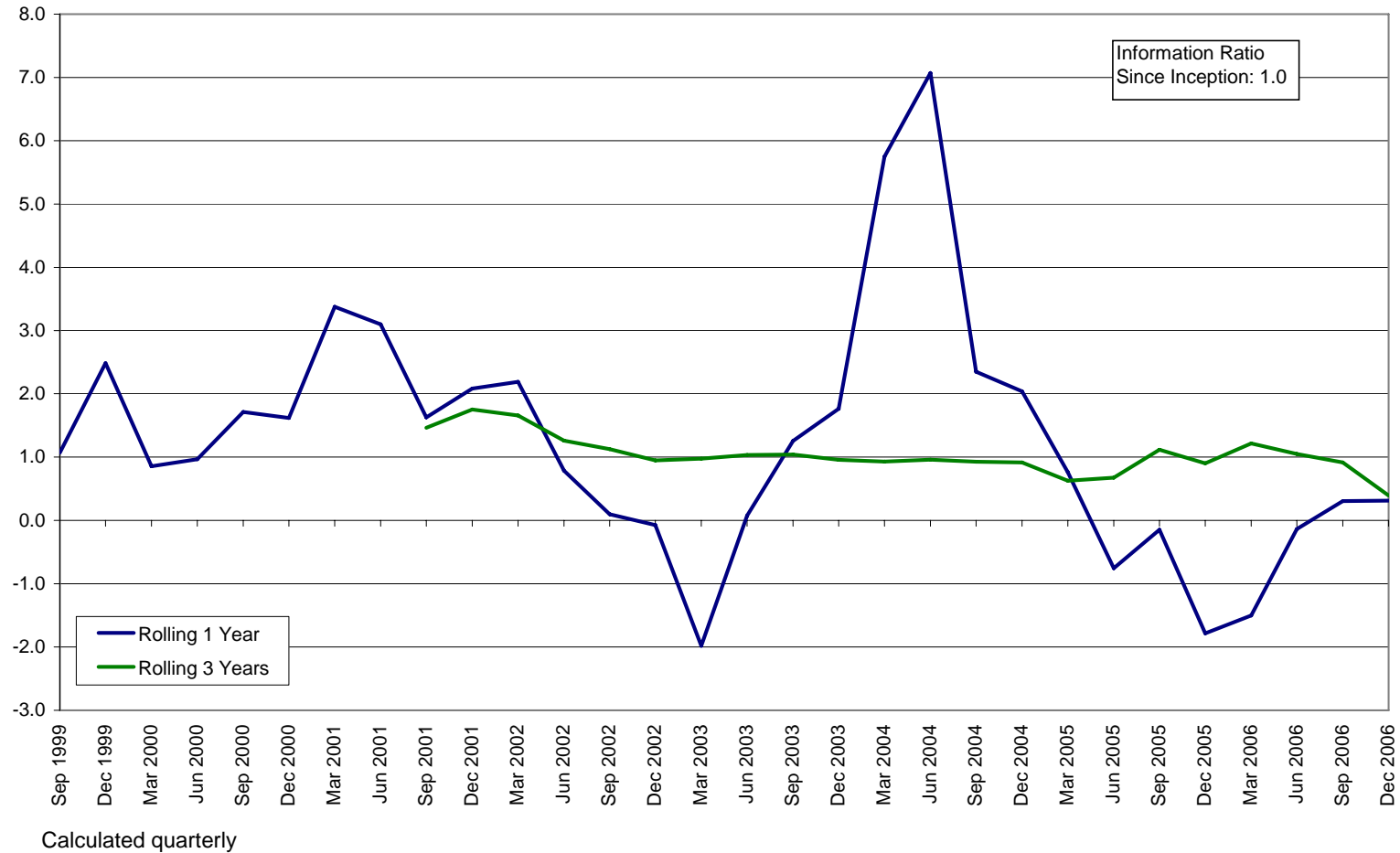
Inception Date - Period Ending December 31, 2006



Information Ratio

Brandes Investment Partners

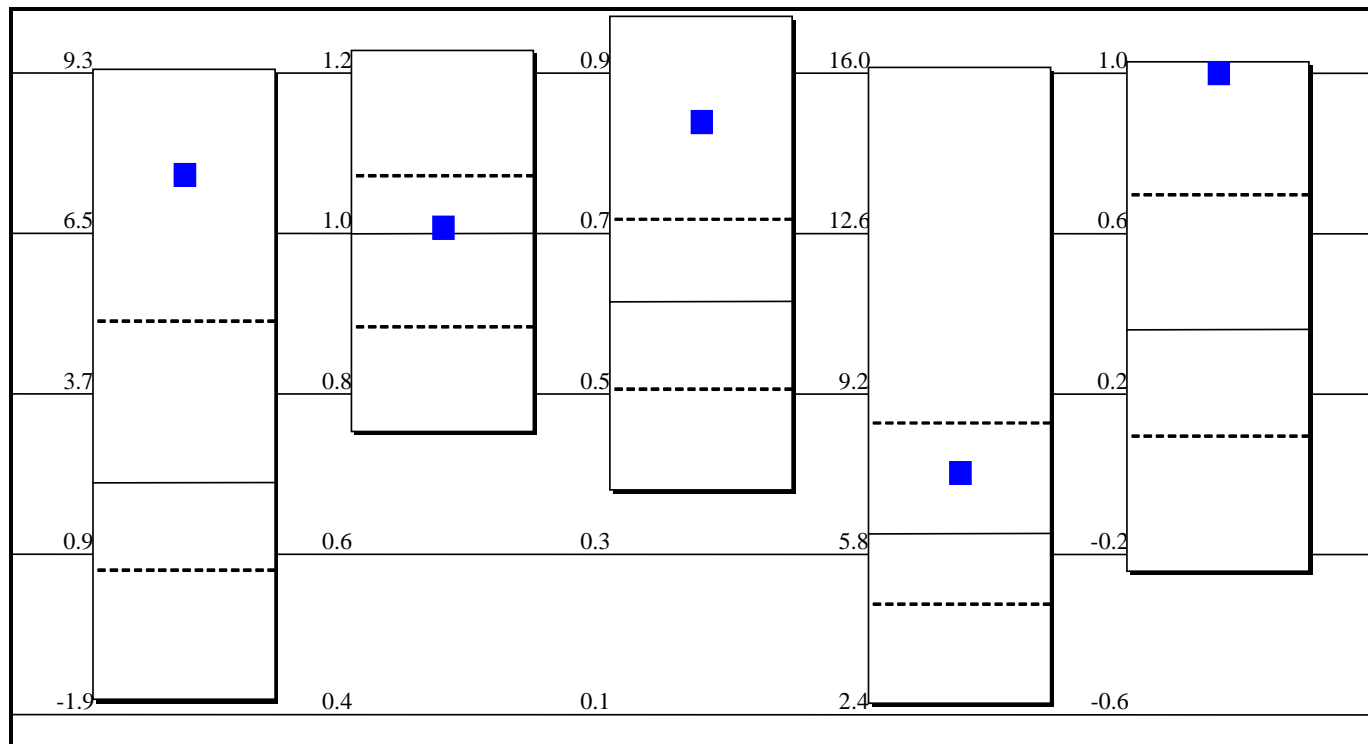
Inception Date - Period Ending December 31, 2006



Peer Comparison with the Mercer International Equity Universe

Brandes Investment Partners

Inception Date - Period Ending December 31, 2006

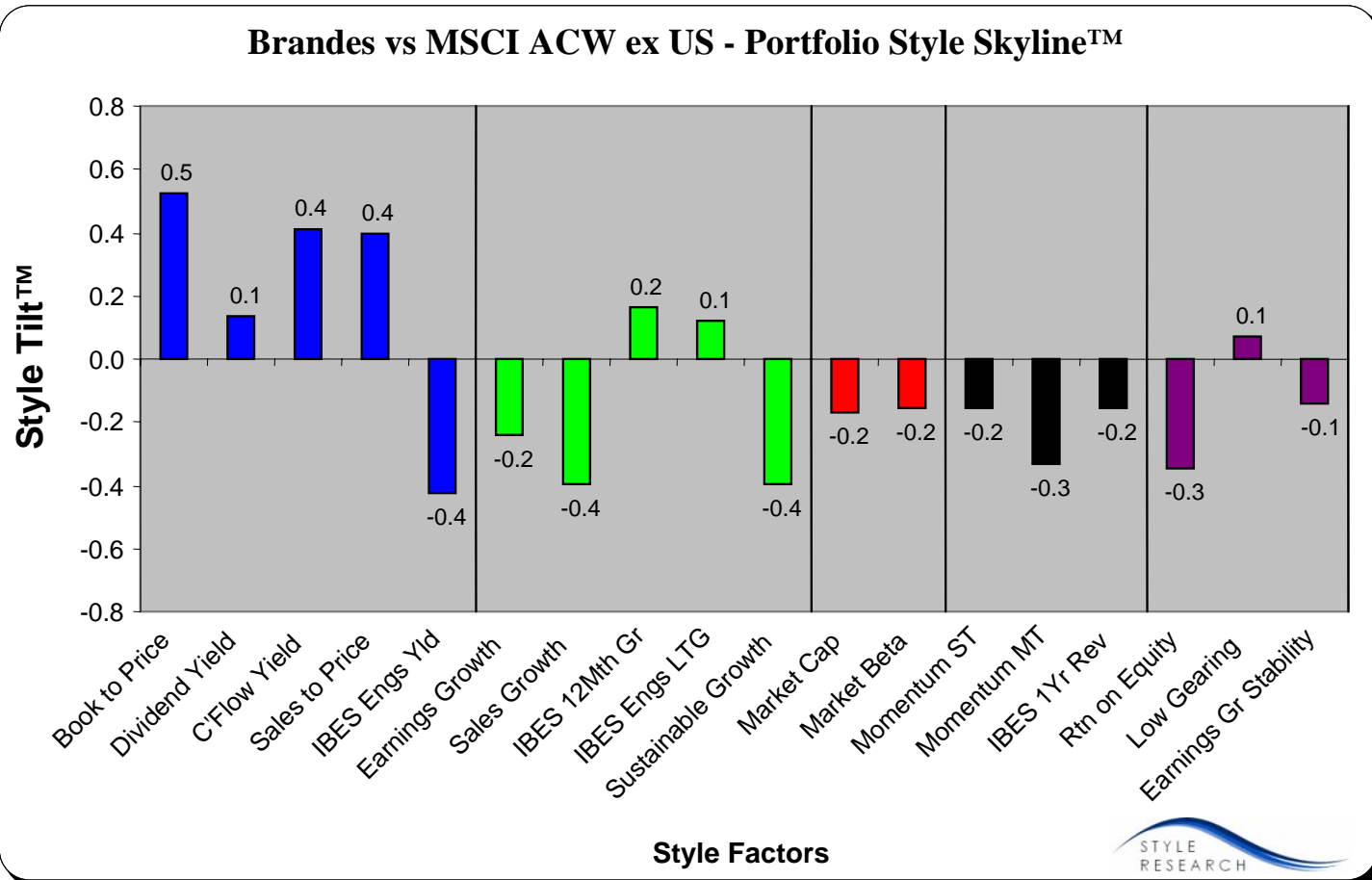


	Excess Return (%pa)	Beta	Reward to Risk	Tracking Error (%pa)	Information Ratio
Brandes	7.5 (11)	1.0 (46)	0.8 (15)	7.5 (36)	1.0 (7)
5th Percentile	9.3	1.2	1.0	16.1	1.0
Upper Quartile	4.9	1.1	0.7	8.6	0.7
Median	2.1	1.0	0.6	6.2	0.4
Lower Quartile	0.6	0.9	0.5	4.7	0.1
95th Percentile	-1.7	0.8	0.4	2.6	-0.2
Number of Funds	150	150	150	150	150

Positions: Style Analysis

Brandes Investment Partners

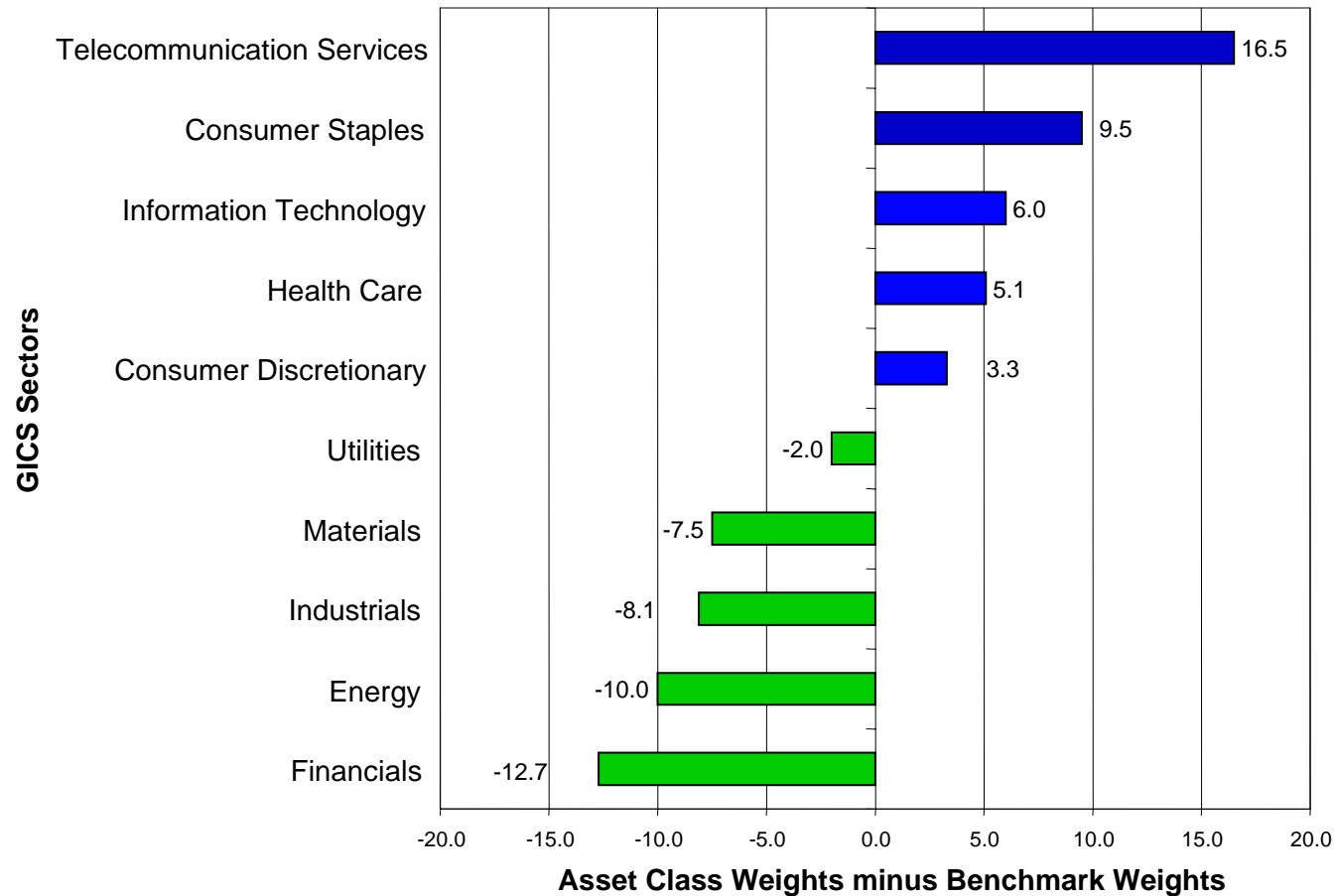
As of December 31, 2006



Positions: Economic Sectors

Brandes Investment Partners

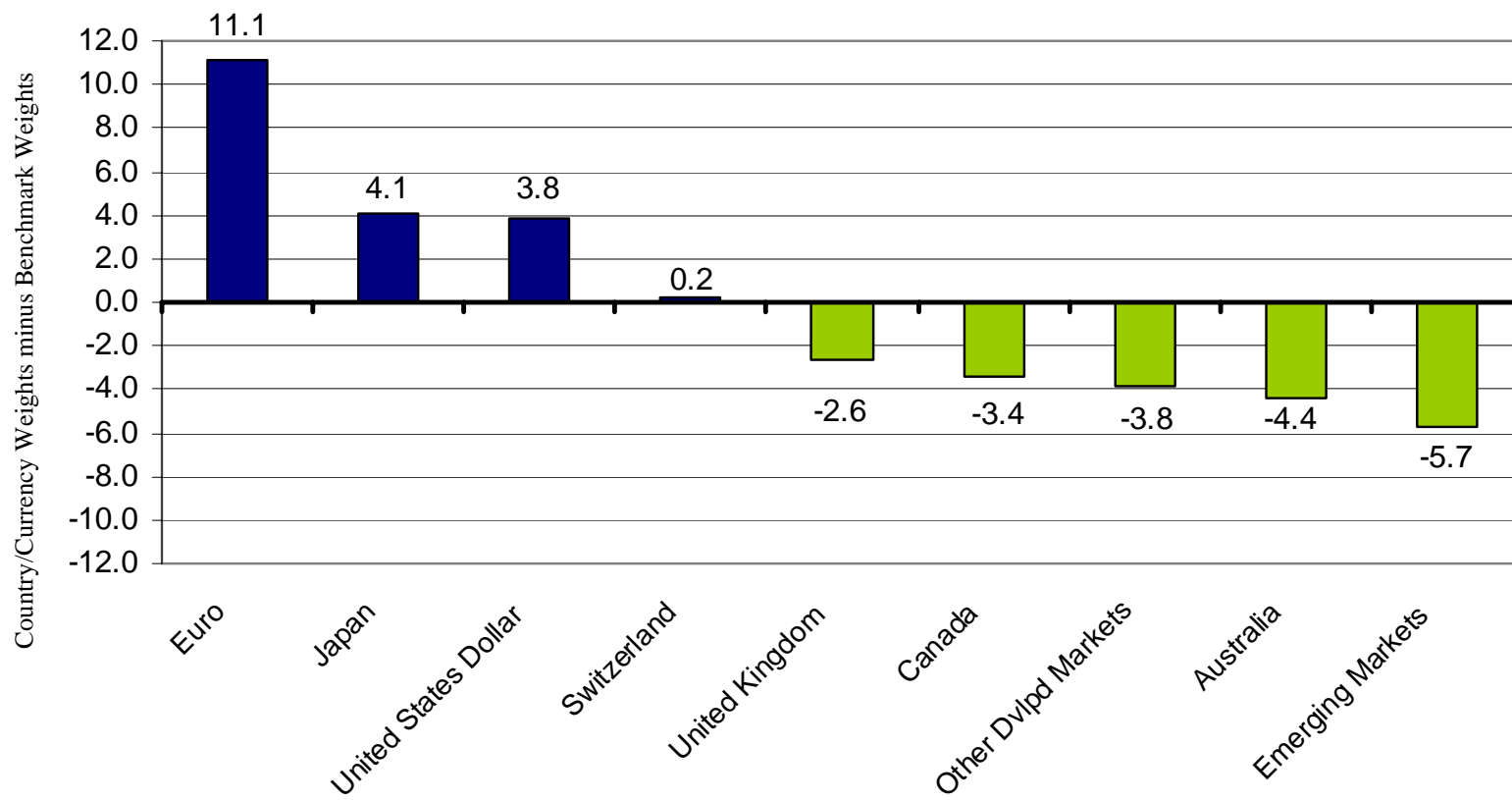
As of December 31, 2006



Positions: Country/Currency Exposure

Brandes Investment Partners

As of December 31, 2006



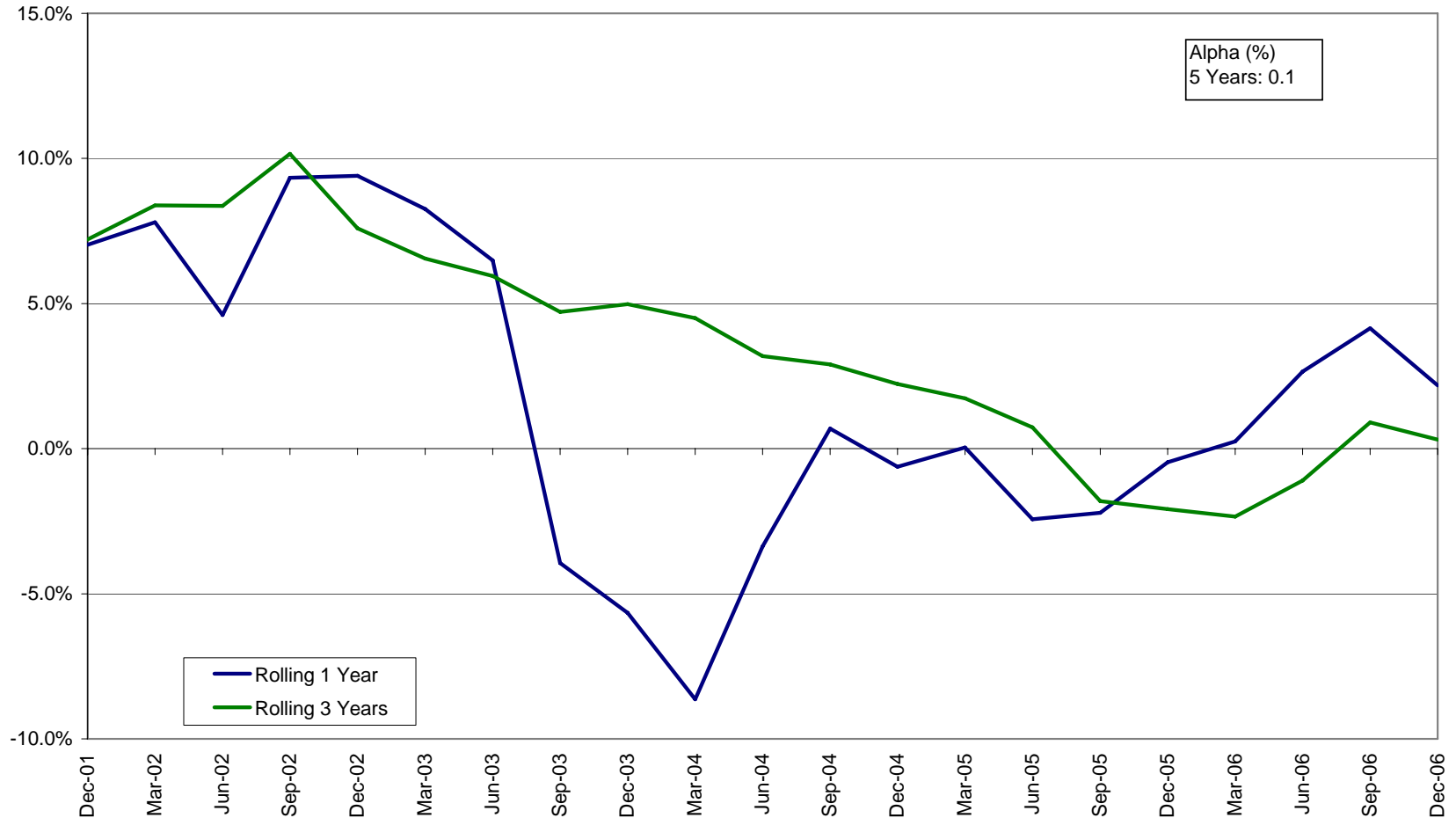
MFS Qualitative Factors

Factors	Description
People	<ul style="list-style-type: none"> • Team-based approach, research analysts provide ideas; however, Portfolio Managers have ultimate decision-making authority. • Interaction among Investment Committee, Analysts, Portfolio Managers, Compliance Department and Traders.
Philosophy	<ul style="list-style-type: none"> • Stocks of companies that provide above-average sustainable earnings growth and trade at a discount to their expected growth rate should outperform the market.
Process	<ul style="list-style-type: none"> • Believe bottom-up fundamental research provides the best means of consistently identifying good quality investment opportunities. • Rather than rely on sell-side estimates, MFS interviews company management, builds proprietary earnings models and rates stocks within industry coverage. • Incorporate the most attractive opportunities across all sectors and all regions to build a diversified portfolio. • Risk management occurs at the security, portfolio and firm levels.

Alpha

MFS Investment Management

5-Year Period Ending December 31, 2006



Calculated quarterly

Composite data is shown prior to July 31, 2005 (before fees).

Information Ratio

MFS Investment Management

5-Year Period Ending December 31, 2006



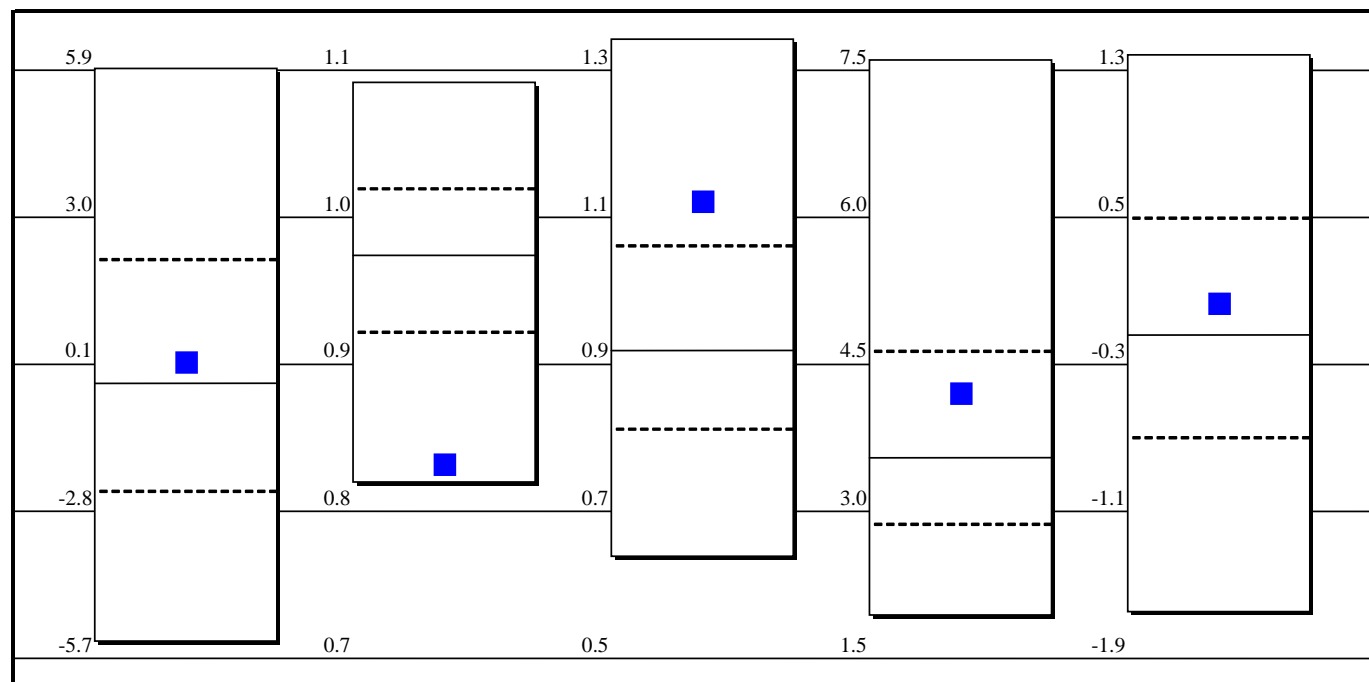
Calculated quarterly

Composite data is shown prior to July 31, 2005 (before fees).

Peer Comparison with the Mercer International Equity Universe

MFS Investment Management

5-Year Period Ending December 31, 2006



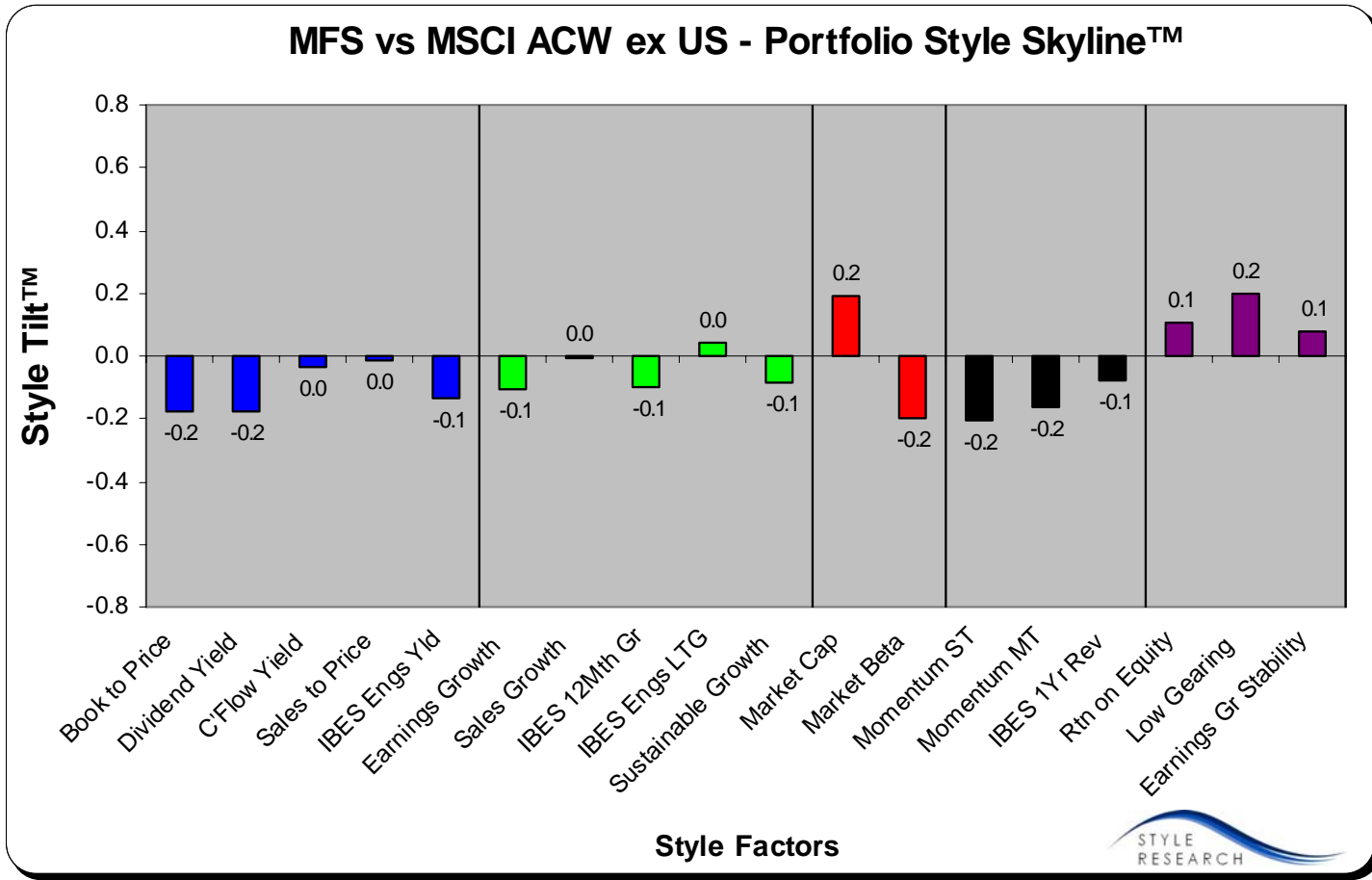
	Excess Return (%pa)	Beta	Reward to Risk	Tracking Error (%pa)	Information Ratio
MFS	0.1 (43)	0.8 (94)	1.1 (18)	4.2 (32)	0.0 (42)
5th Percentile	5.9	1.1	1.3	7.6	1.4
Upper Quartile	2.1	1.0	1.1	4.6	0.5
Median	-0.3	1.0	0.9	3.5	-0.1
Lower Quartile	-2.5	0.9	0.8	2.8	-0.7
95th Percentile	-5.4	0.8	0.6	1.9	-1.6
Number of Funds	206	206	206	206	206

Composite data is shown prior to July 31, 2005 (before fees).

Positions: Style Analysis

MFS Investment Management

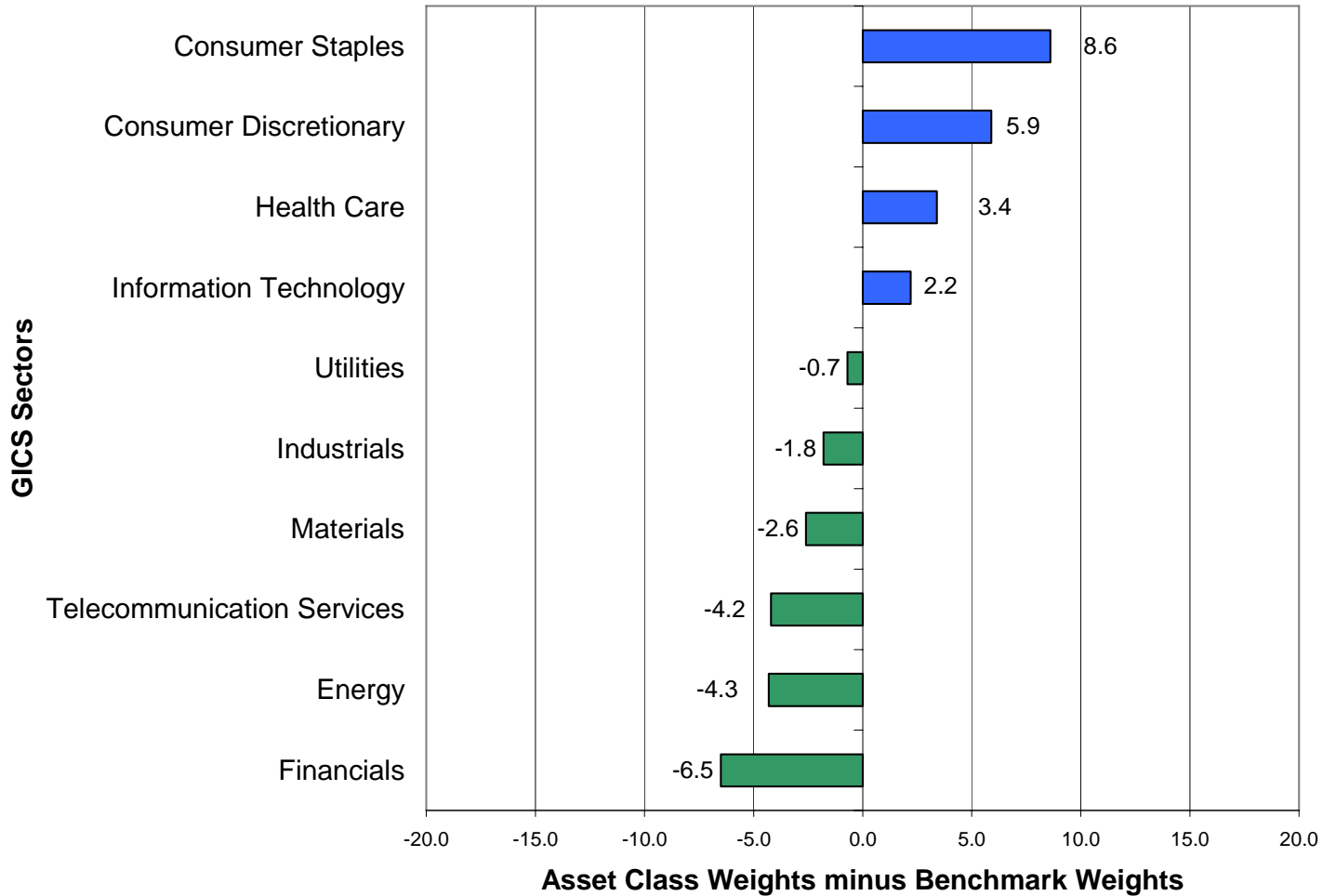
As of December 31, 2006



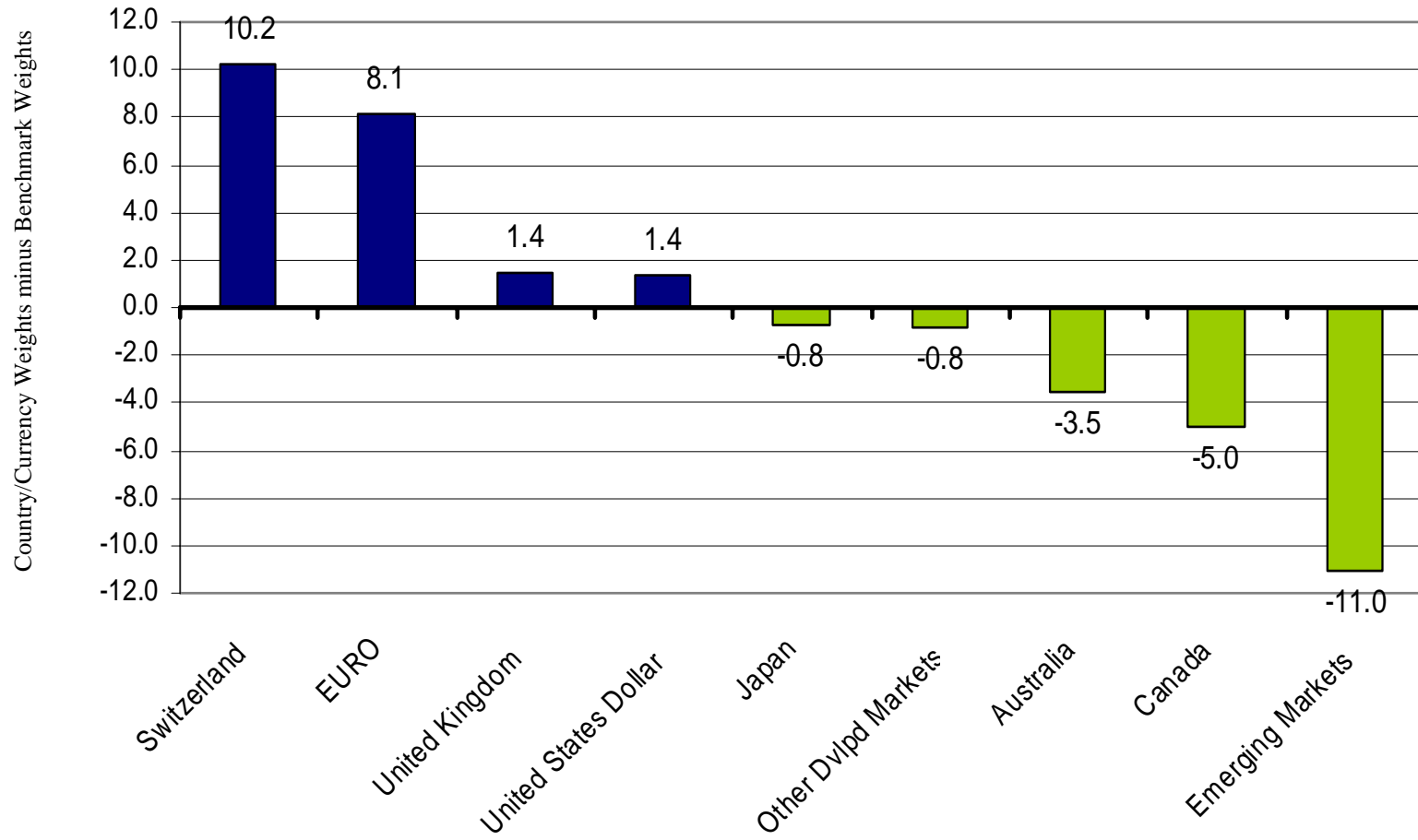
Positions: Economic Sectors

MFS Investment Management

As of December 31, 2006



MFS
Style Analysis: Country/Currency Exposure
As of December 31, 2006



Hansberger Global Investors

Qualitative Factors

Factors	Description
People	<ul style="list-style-type: none"> • Team-based approach, investment professionals and industry analysts provide ideas; however, CIO has ultimate decision-making authority backed up by the Portfolio Management team.
Philosophy	<ul style="list-style-type: none"> • Believe that superior growth companies with attractive valuations and a competitive market advantage provide the best opportunities for investment.
Process	<ul style="list-style-type: none"> • Quantitative screens are used to identify the top quintile of stocks with superior growth characteristics, these screens result in approximately 500 stocks known as a “Star List”. • The “Star List” is rated based on relative valuation and price momentum; the top 80-100 stocks are considered for portfolio inclusion. • Fundamental analysis is used to further refine the list and identify any issues the quantitative approach may have overlooked. • Portfolios are diversified.

Alpha Hansberger Global Investors 5-Year Period Ending December 31, 2006



Composite data is shown prior to July 31, 2005 (before fees).

Information Ratio

Hansberger Global Advisors

5-Year Period Ending December 31, 2006



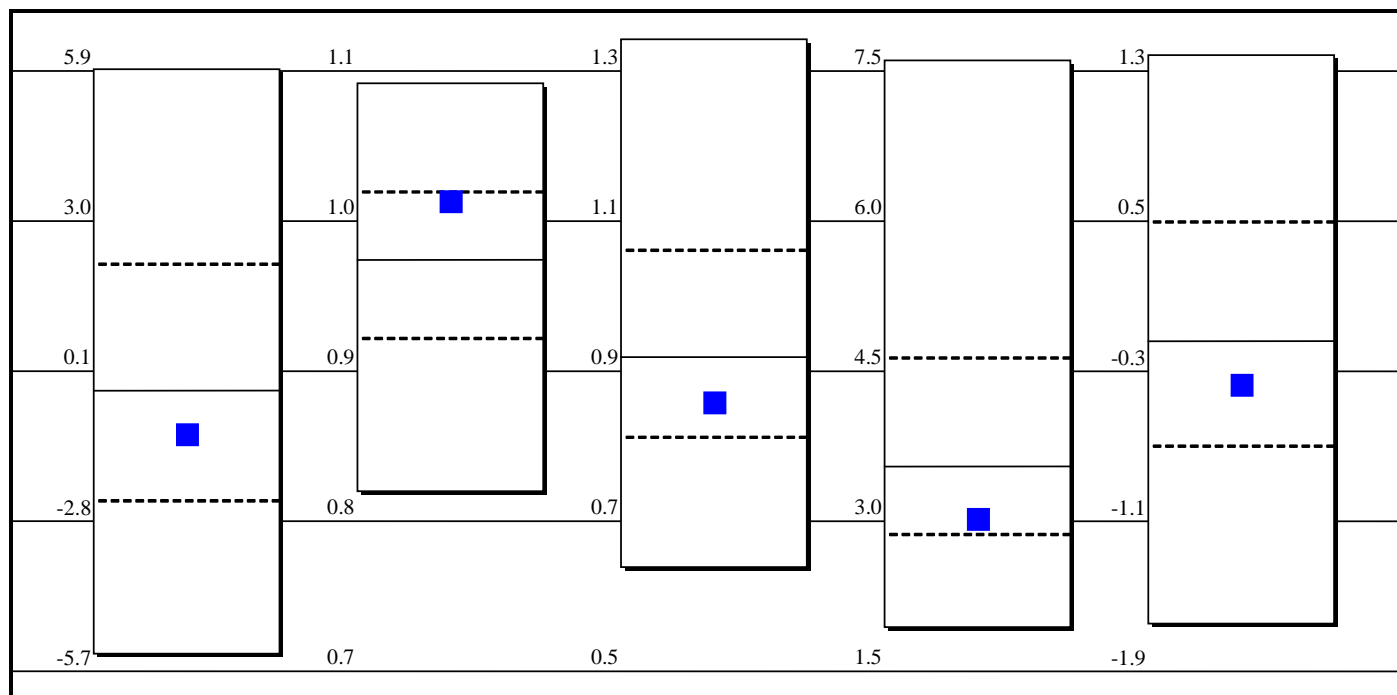
Calculated quarterly

Composite data is shown prior to July 31, 2005 (before fees).

Peer Comparison with the Mercer International Equity Universe

Hansberger Global Advisors

5-Year Period Ending December 31, 2006



	Excess Return (%pa)	Beta	Reward to Risk	Tracking Error (%pa)	Information Ratio
Hansberger	-1.1 (60)	1.0 (29)	0.9 (64)	3.0 (70)	-0.4 (63)
5th Percentile	5.9	1.1	1.3	7.6	1.4
Upper Quartile	2.1	1.0	1.1	4.6	0.5
Median	-0.3	1.0	0.9	3.5	-0.1
Lower Quartile	-2.5	0.9	0.8	2.8	-0.7
95th Percentile	-5.4	0.8	0.6	1.9	-1.6
Number of Funds	206	206	206	206	206

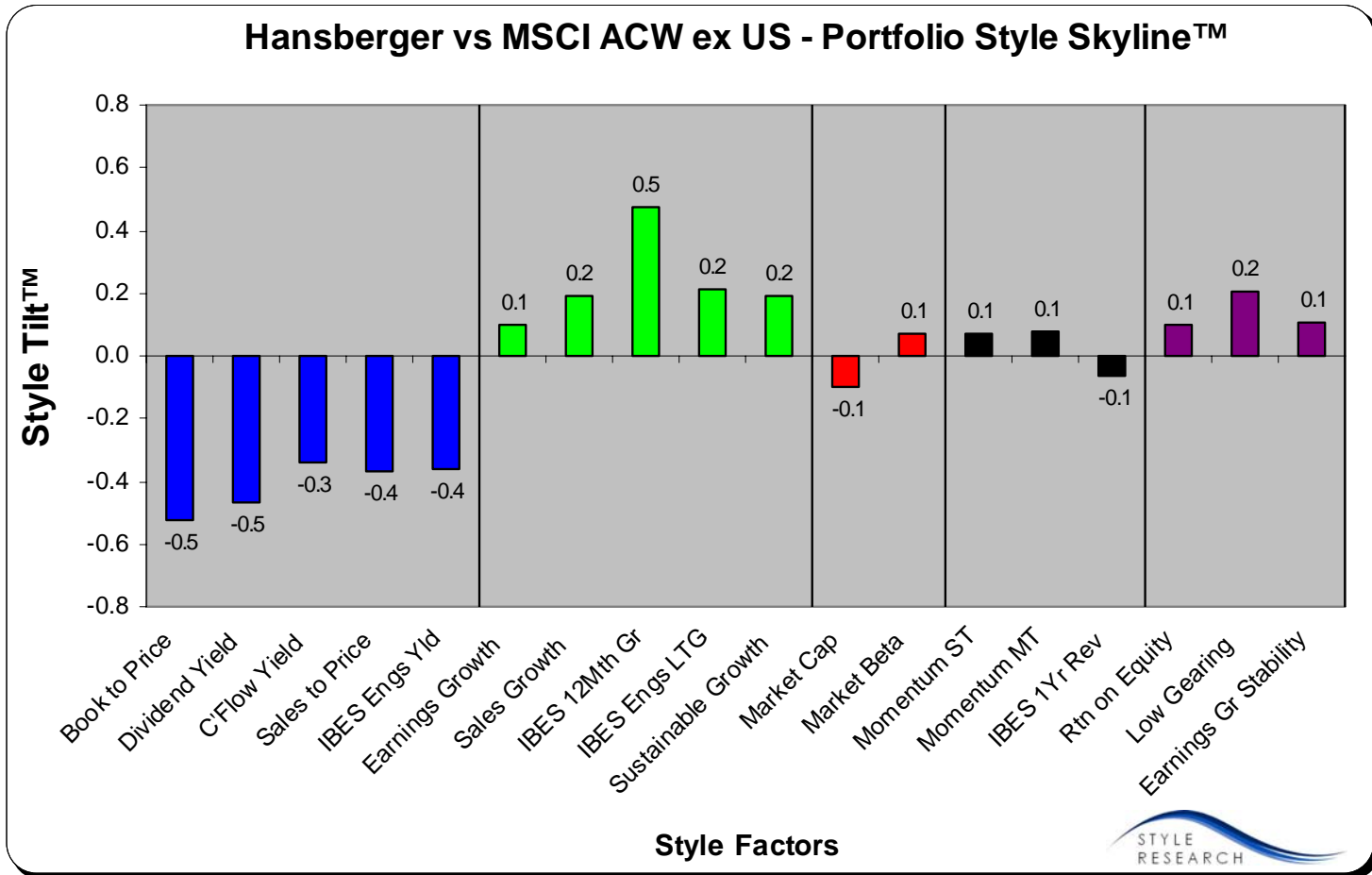
Composite data is shown prior to July 31, 2005 (before fees).

Risk and Return Characteristics calculated quarterly versus MSCI ACW ex. US Index

Positions: Style Analysis

Hansberger Global Advisors

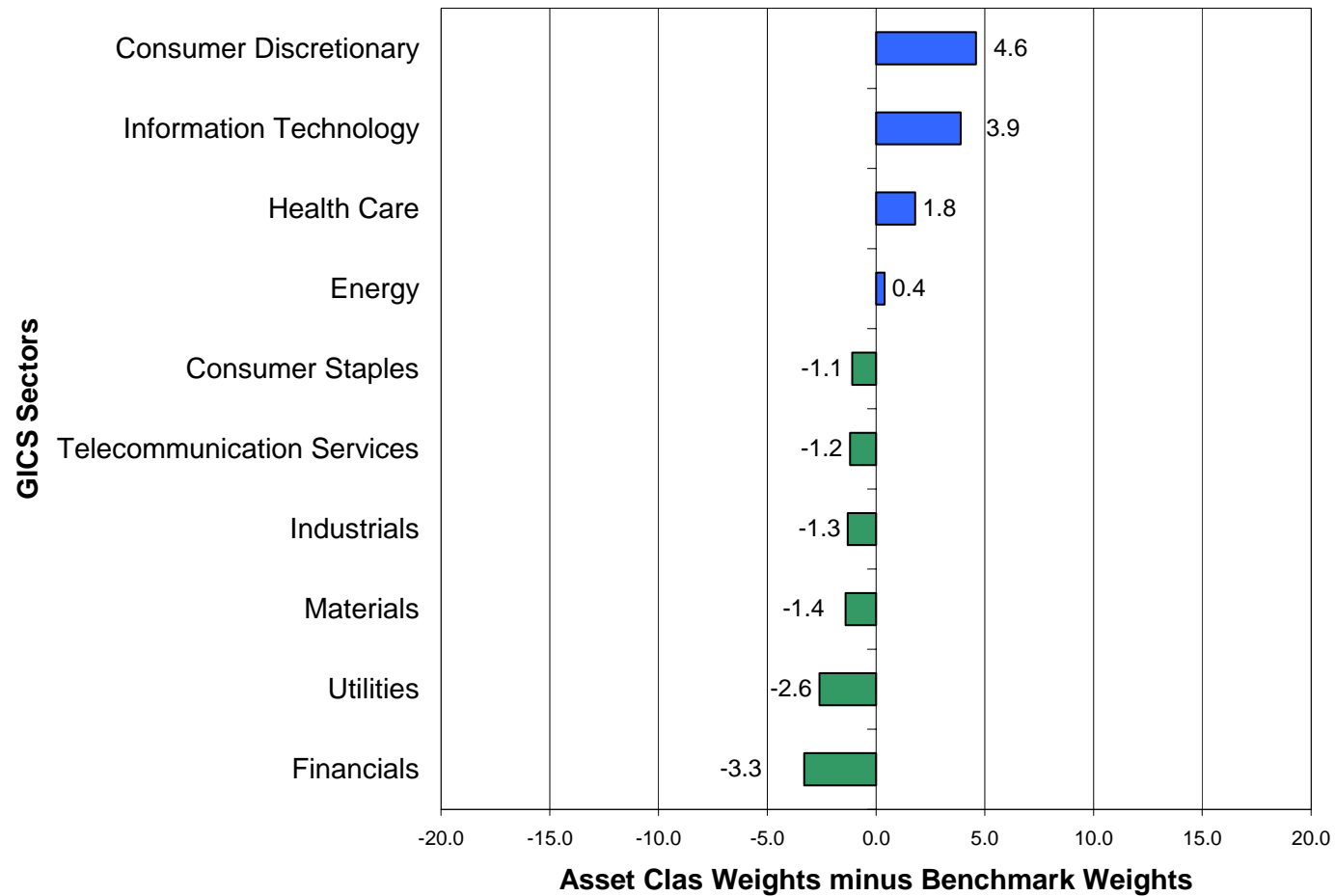
As of December 31, 2006



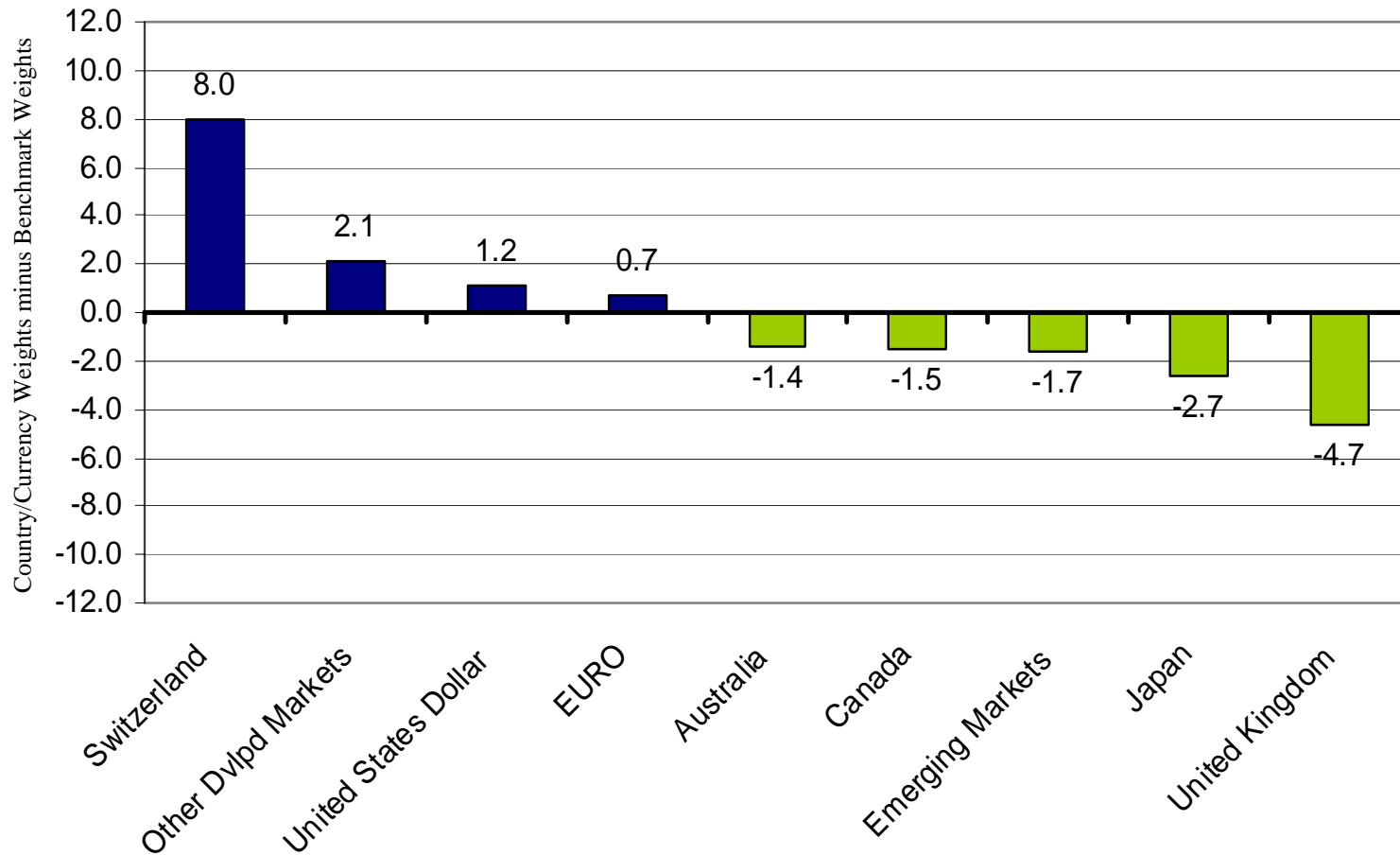
Positions: Economic Sectors

Hansberger Global Advisors

As of December 31, 2006



Hansberger Global Investors
Style Analysis: Country/Currency Exposure
As of December 31, 2006

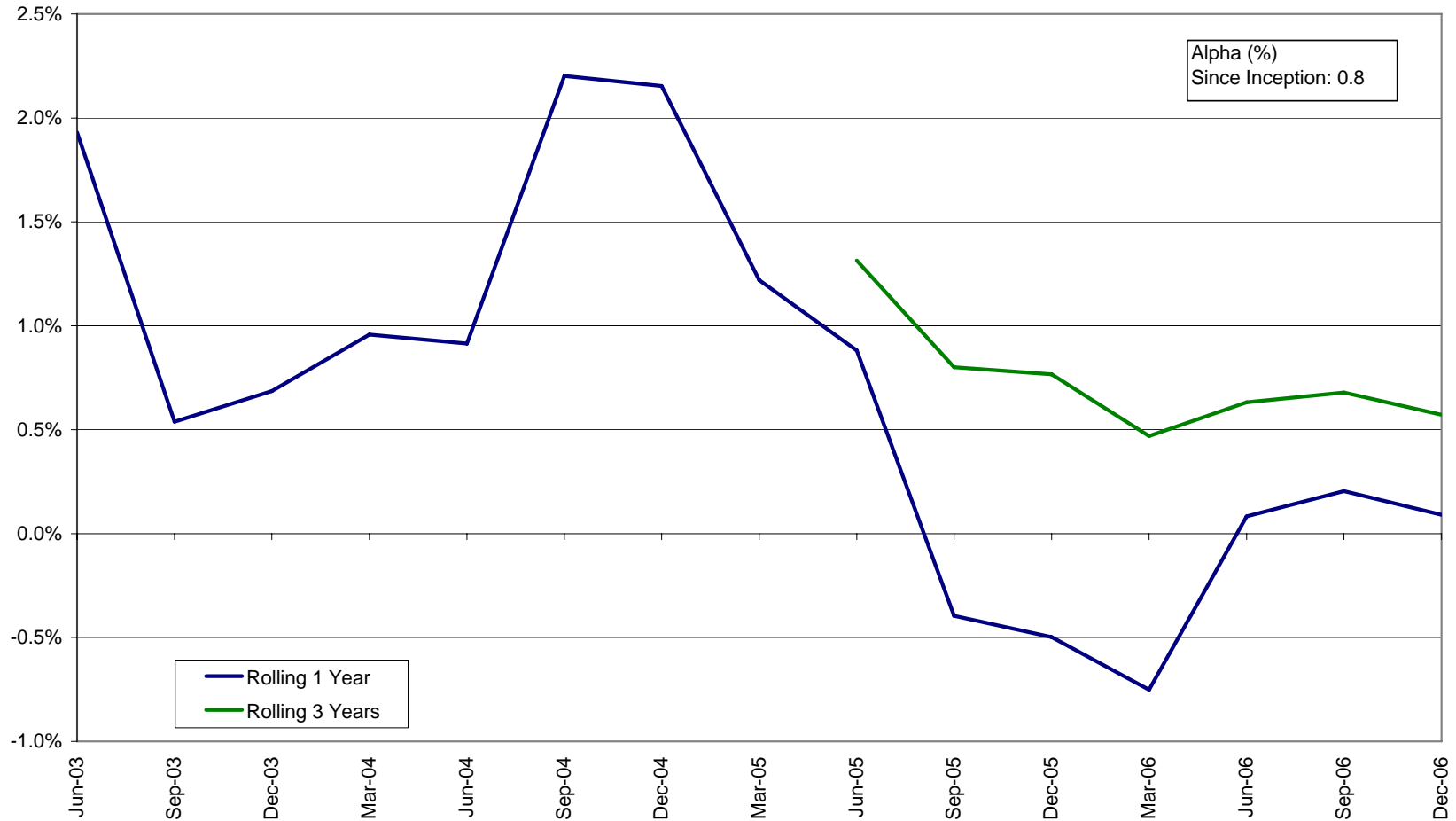


BGI Global ex-US Alpha Tilts

Qualitative Factors

Factors	Description
People	<ul style="list-style-type: none"> • Team approach in the areas of strategy, portfolio management, client service, research, trading and operations support. • Investment professionals work on multiple strategies and team members are easily interchangeable. • Research is conducted by over 145 experienced academics and investment professionals. The research group does not have portfolio management or marketing responsibilities.
Philosophy	<ul style="list-style-type: none"> • Seek to capture systematic return effects driven by market inefficiencies that are undiscovered or ignored by many investors while minimizing uncompensated risks.
Process	<ul style="list-style-type: none"> • BGI uses a proprietary alpha forecasting model and an advanced optimization process to select stocks in the developed market portion of the Global Ex-US Alpha Tilts Fund. • Active risk is allocated to Europe, Japan and Canada. No risk exposure/passive allocation assigned to New Zealand, Australia, Emerging Markets, Hong Kong and Singapore. • The models quantify complex pricing relationships across the equity markets and identify the sources or factors of equity returns that are slightly mispriced by the market. The portfolio is structured to emphasize (or “tilt” toward) return factors that are undervalued. • The models use relative value, earnings quality and sentiment signals. • Each developed market regional tilts portfolio is optimized separately. The resulting portfolios are highly diversified.

Alpha Barclays Global Investors 4.5-Year Period Ending December 31, 2006



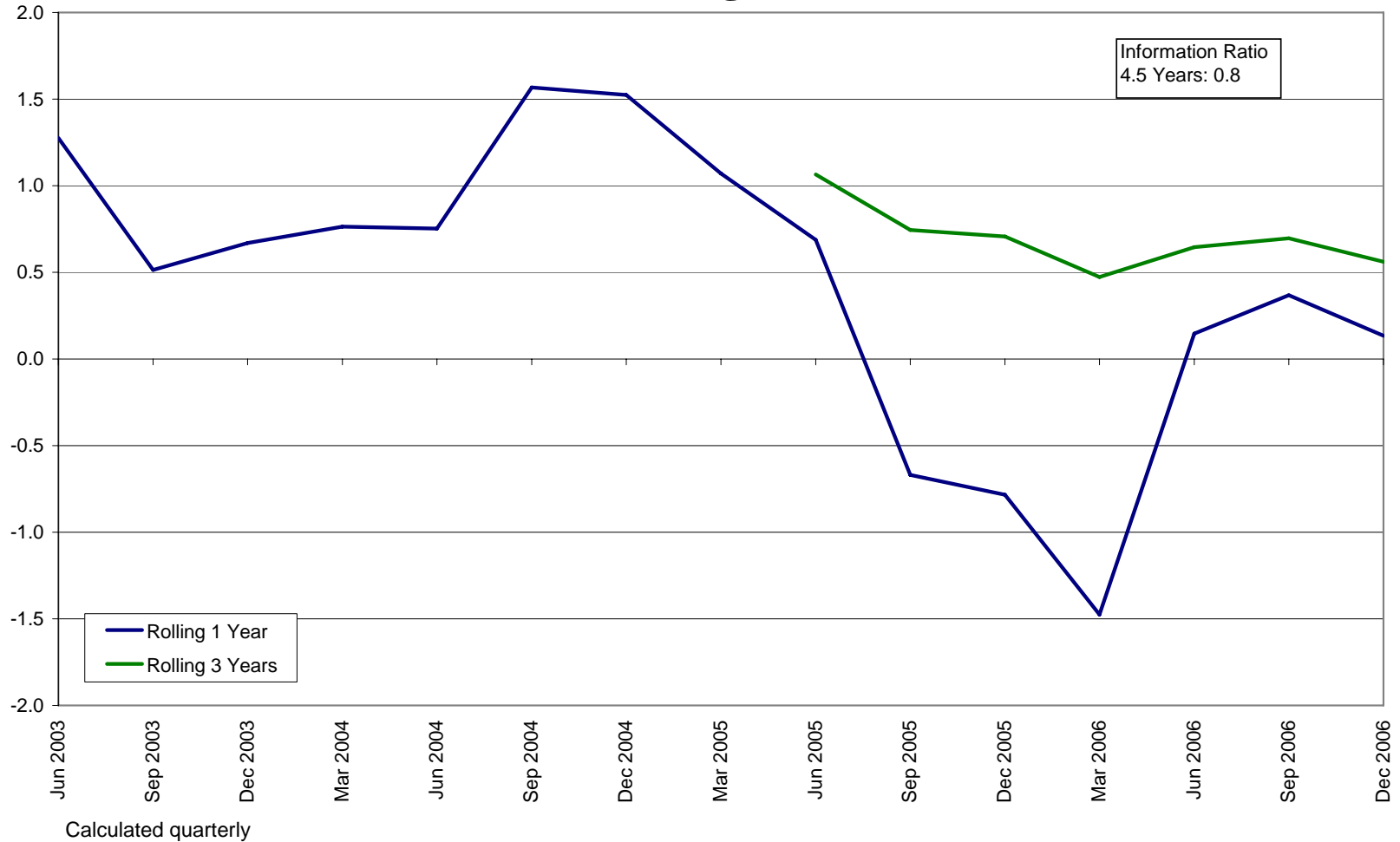
Calculated quarterly

Composite data is shown prior to September 30, 2005 (before fees).

Information Ratio

Barclays Global Investors

4.5-Year Period Ending December 31, 2006

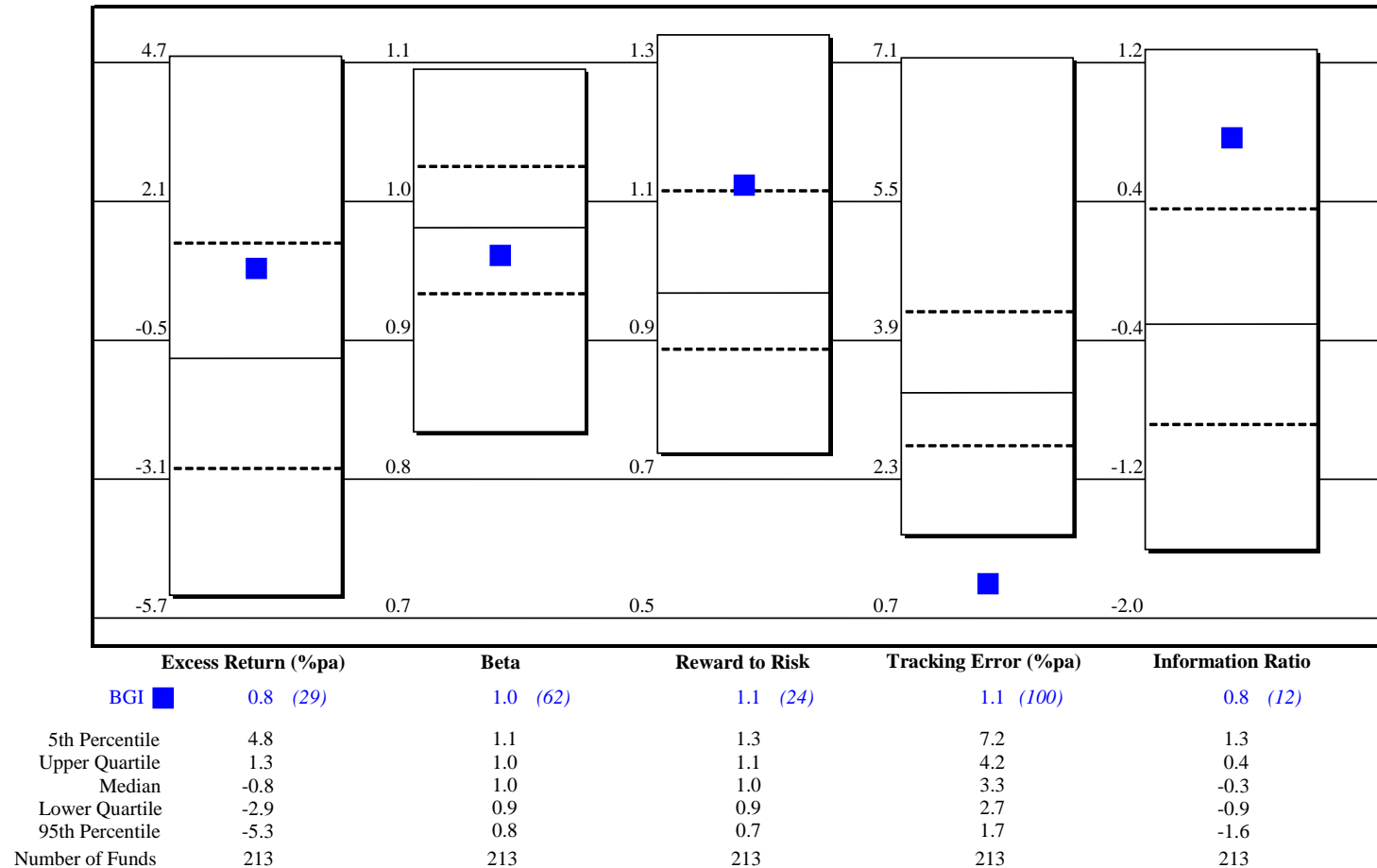


Composite data is shown prior to September 30, 2005 (before fees).

Peer Comparison with the Mercer International Equity Small Cap Universe

Barclays Global Investors

4.5-Year Period Ending December 31, 2006

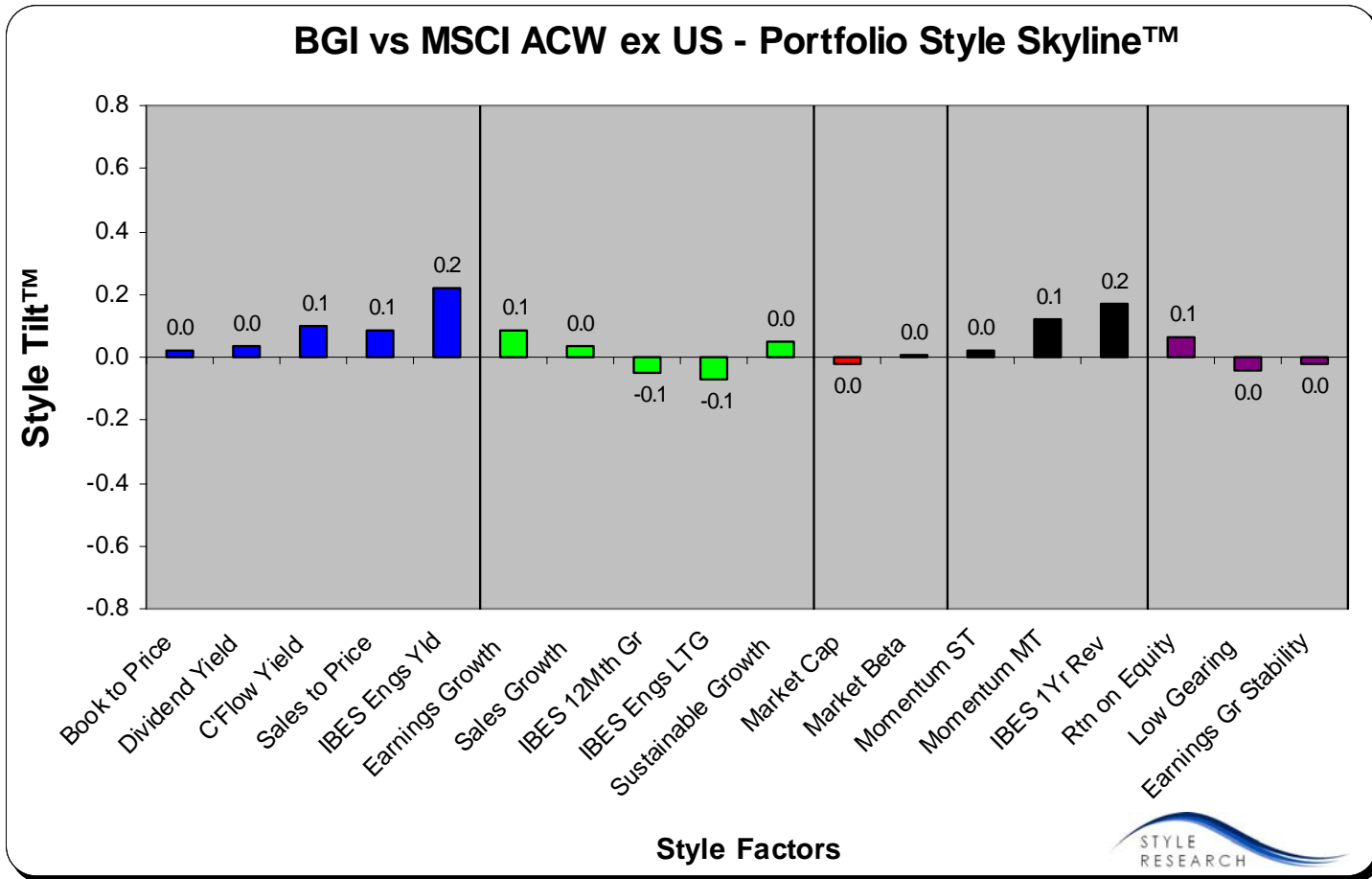


Composite data is shown prior to September 30, 2005 (before fees).

Positions: Style Analysis

Barclays Global Investors

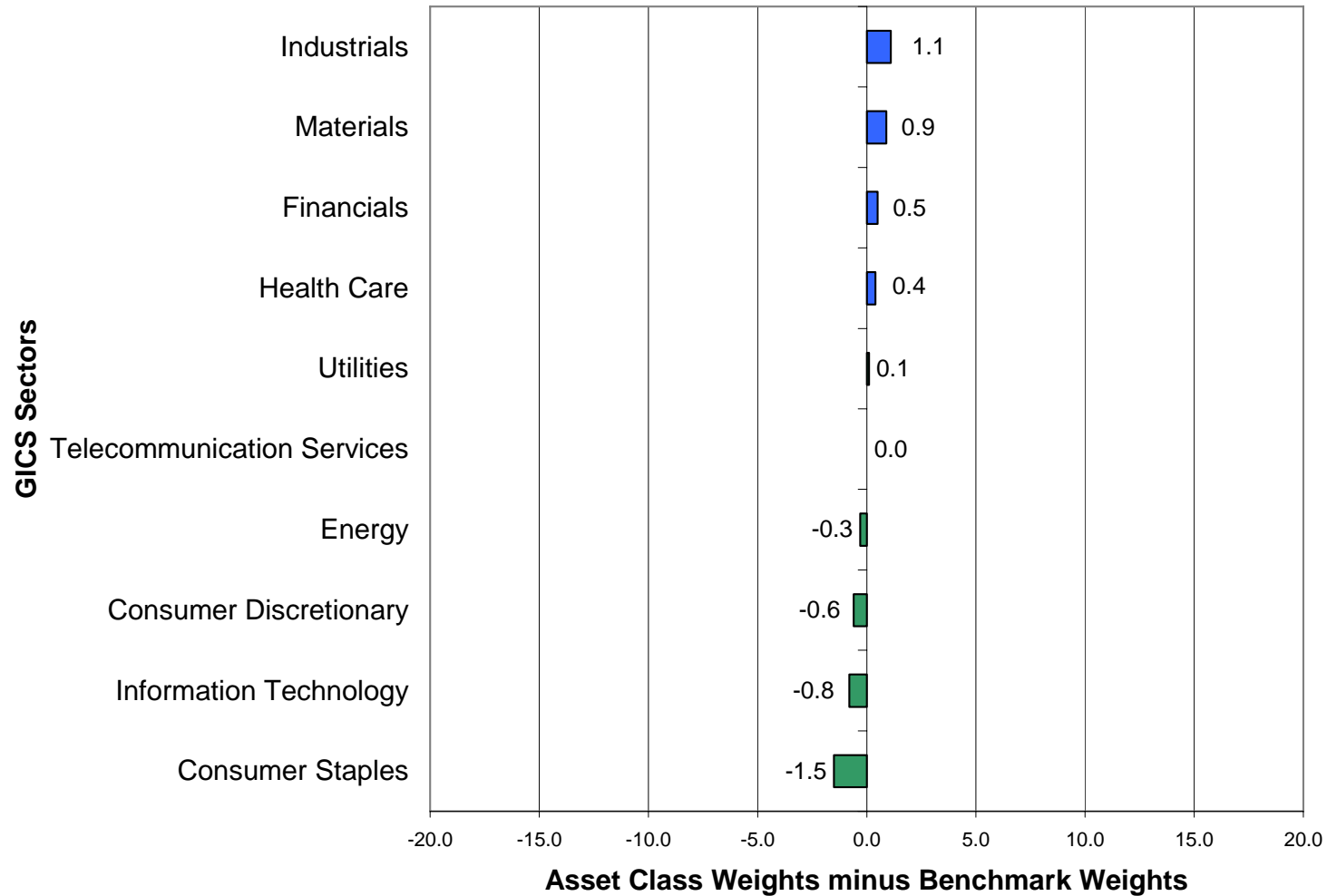
As of December 31, 2006



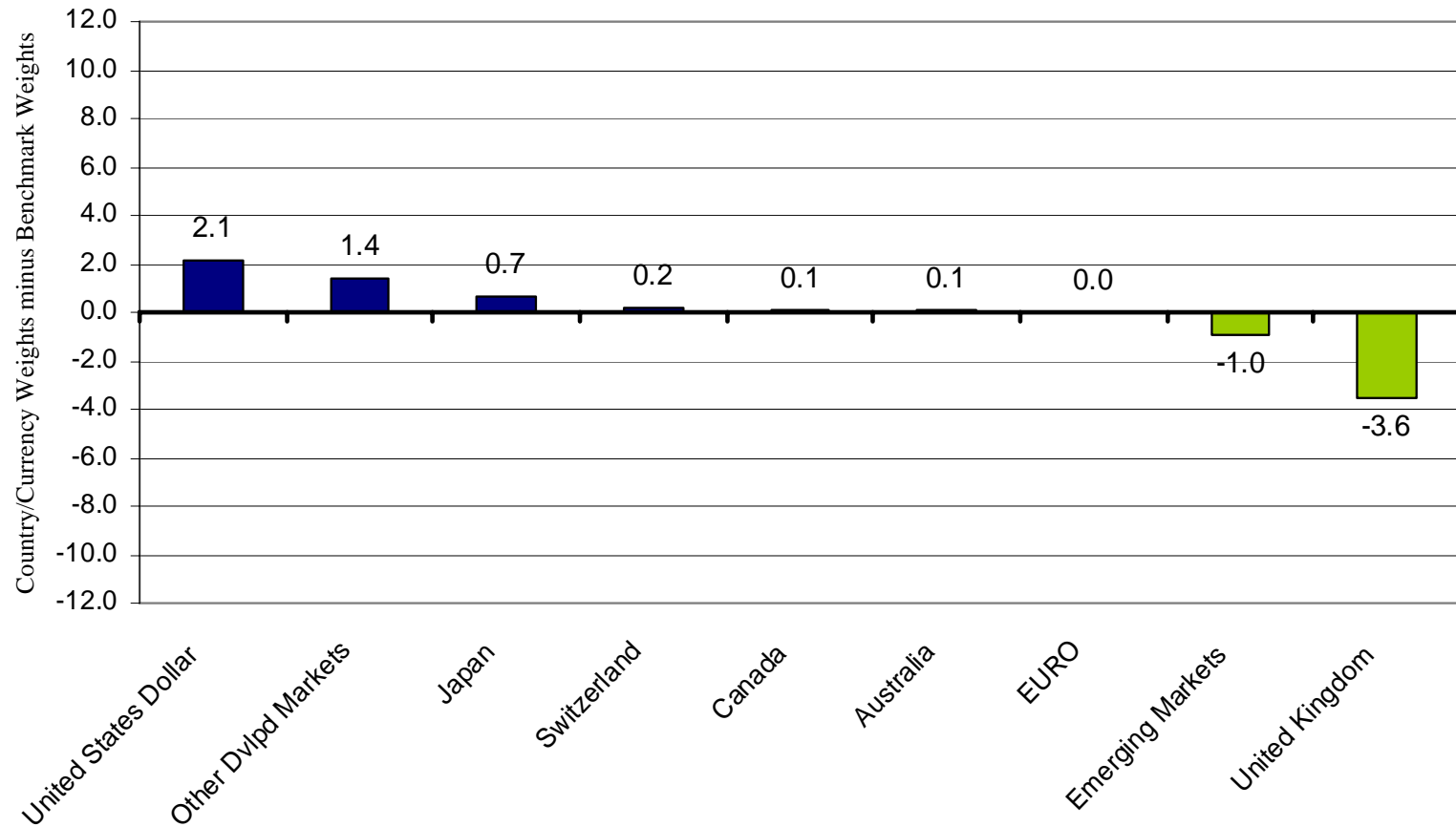
Positions: Economic Sectors

Barclays Global Investors

As of December 31, 2006



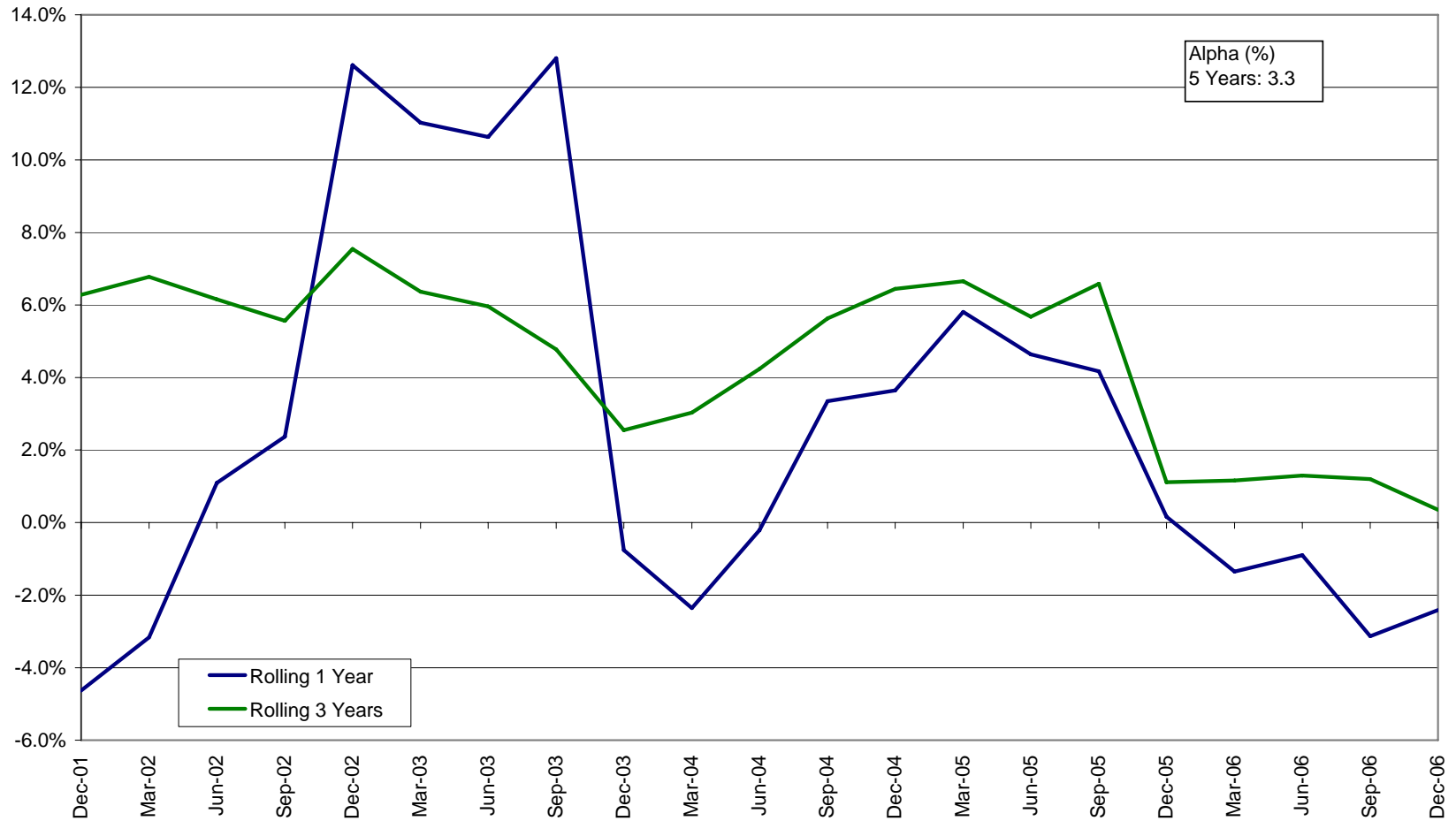
BGI Global ex-US Alpha Tilts
Style Analysis: Country/Currency Exposure
As of December 31, 2006



AXA Rosenberg Qualitative Factors

Factors	Description
People	<ul style="list-style-type: none"> • Stock evaluation and portfolio construction are accomplished through AXA's expert system, as such the firm is not particularly vulnerable to key personnel departures. • Daily interface between investment professionals is integrated globally so that all parties can access information from different regions.
Philosophy	<ul style="list-style-type: none"> • Believe investors can profit by purchasing under priced stocks; a company's fundamentals drive its earnings and the price paid for earnings ultimately drives performance.
Process	<ul style="list-style-type: none"> • Portfolio characteristics are similar to the benchmark, stock selection drives performance. • Through fundamental analysis they identify companies that are inexpensive relative to their peers and that can potentially generate future earnings. • AXA's process combines three models: <i>Valuation Model</i> – Identify most attractively priced stocks in each industry; <i>Earnings Forecast Model</i> –Identify companies with superior year-ahead earnings in each industry; <i>Risk Model</i> - Maximize return with Minimum deviation from the benchmark. • The portfolio will typically hold 600 names, well diversified. • 95% of research is generated internally by the Barr Rosenberg Research Center.

Alpha AXA Rosenberg 5-Year Period Ending December 31, 2006



Calculated quarterly

Composite data is shown prior to August 31, 2005 (before fees).

Information Ratio AXA Rosenberg 5-Year Period Ending December 31, 2006

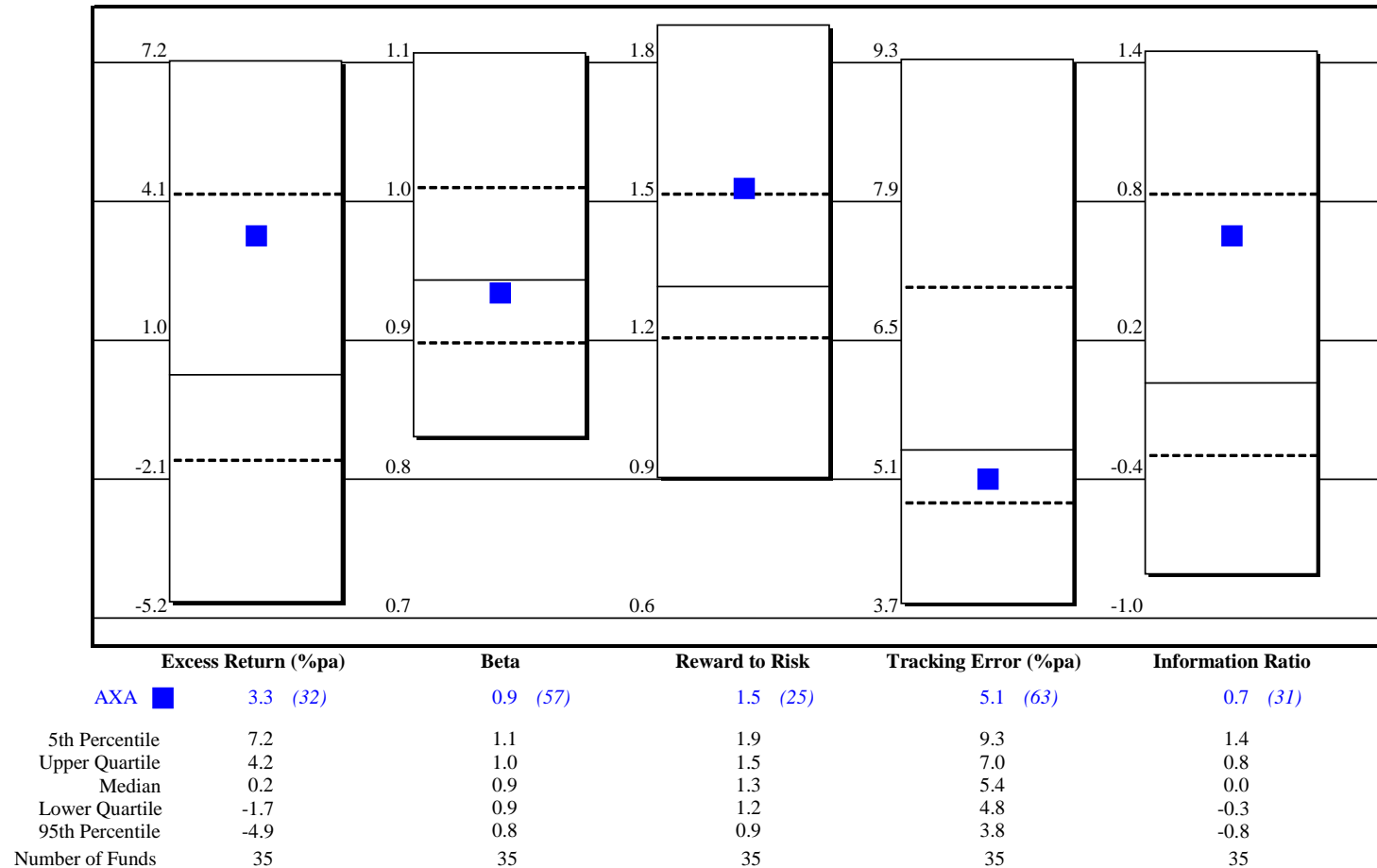


Composite data is shown prior to August 31, 2005 (before fees).

Peer Comparison with the Mercer International Equity Small Cap Universe

AXA Rosenberg

5-Year Period Ending December 31, 2006



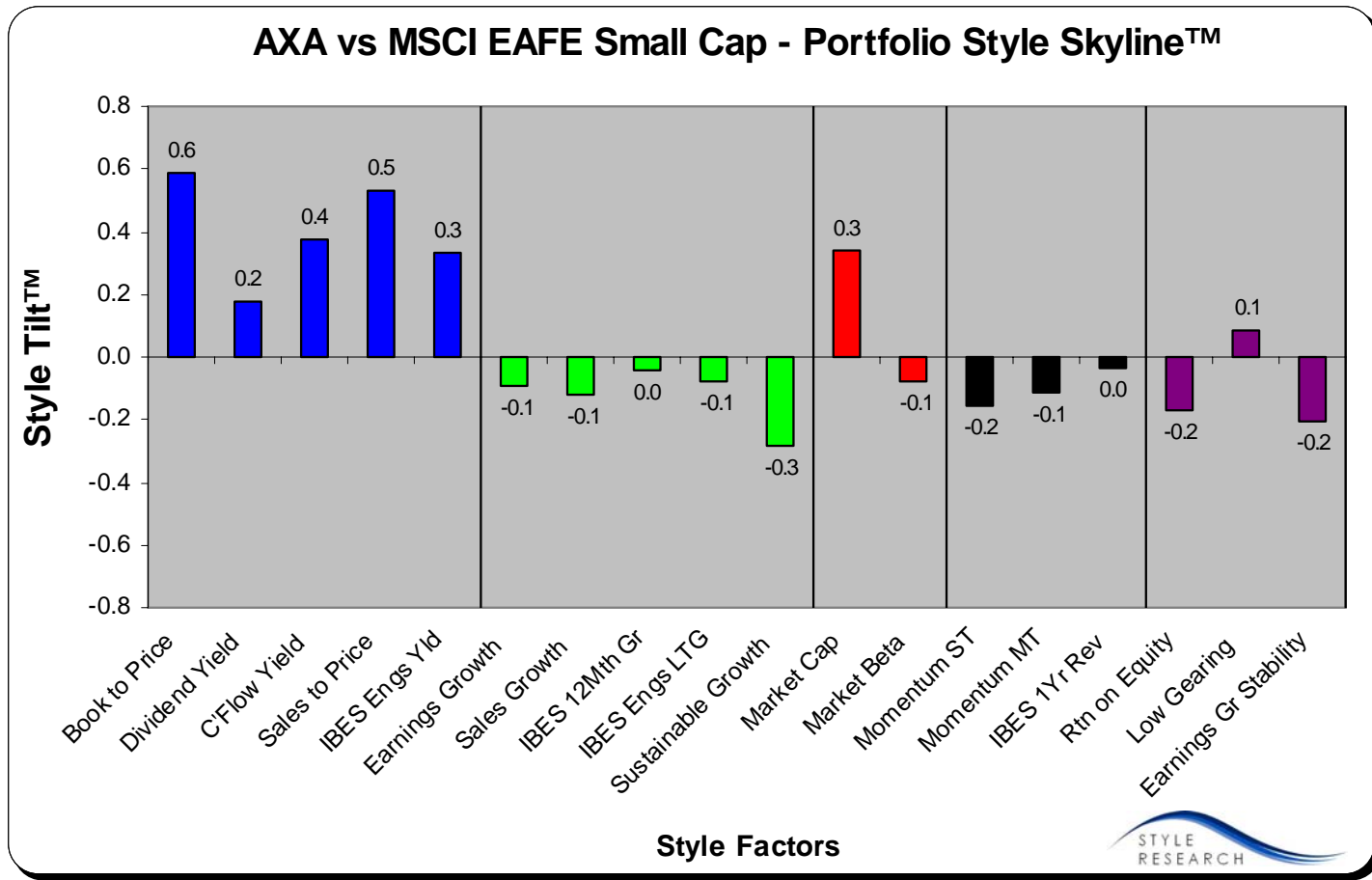
Composite data is shown prior to August 31, 2005 (before fees).

Risk and Return Characteristics calculated quarterly versus MSCI EAFE Small Cap Index

Positions: Style Analysis

AXA Rosenberg

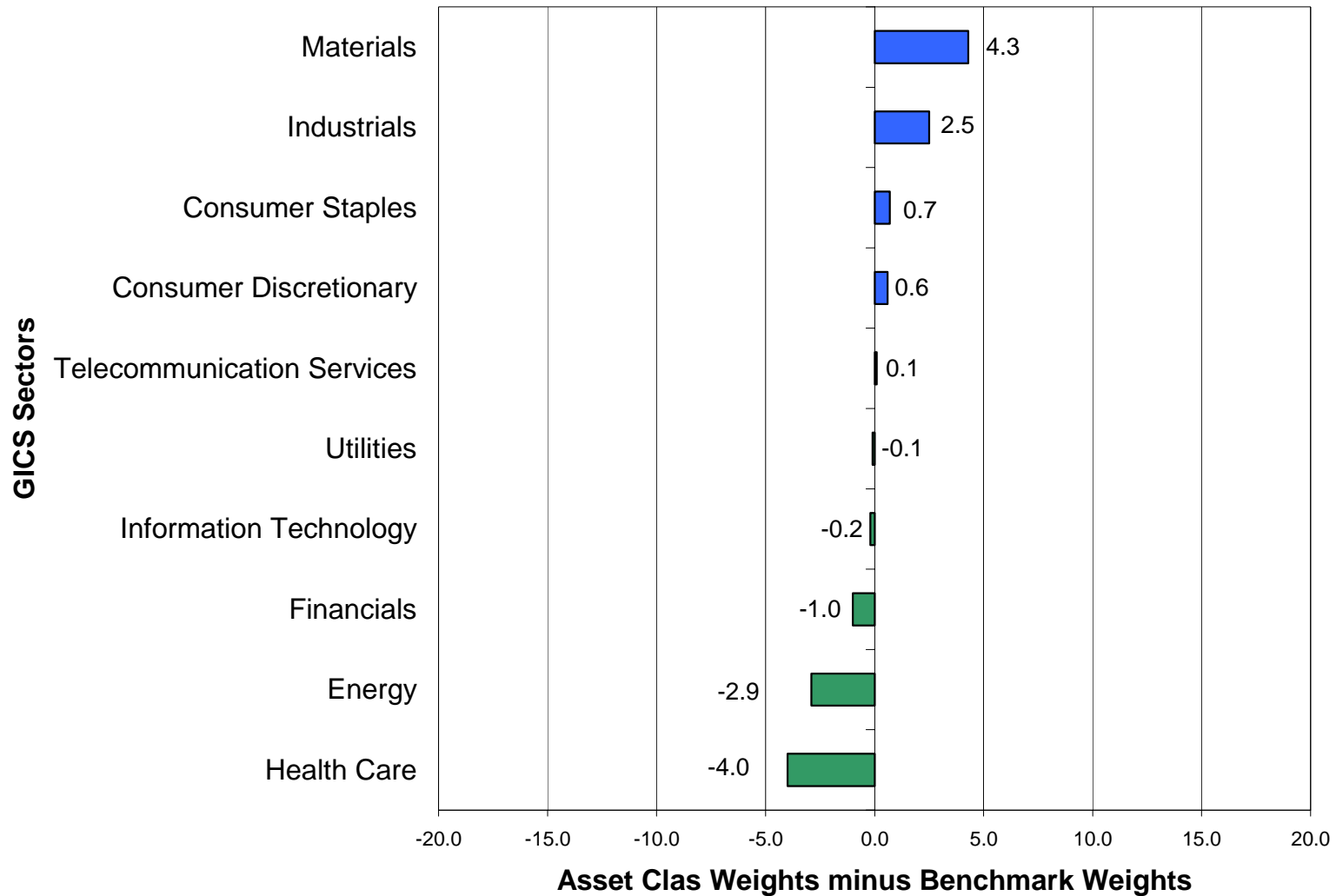
As of December 31, 2006



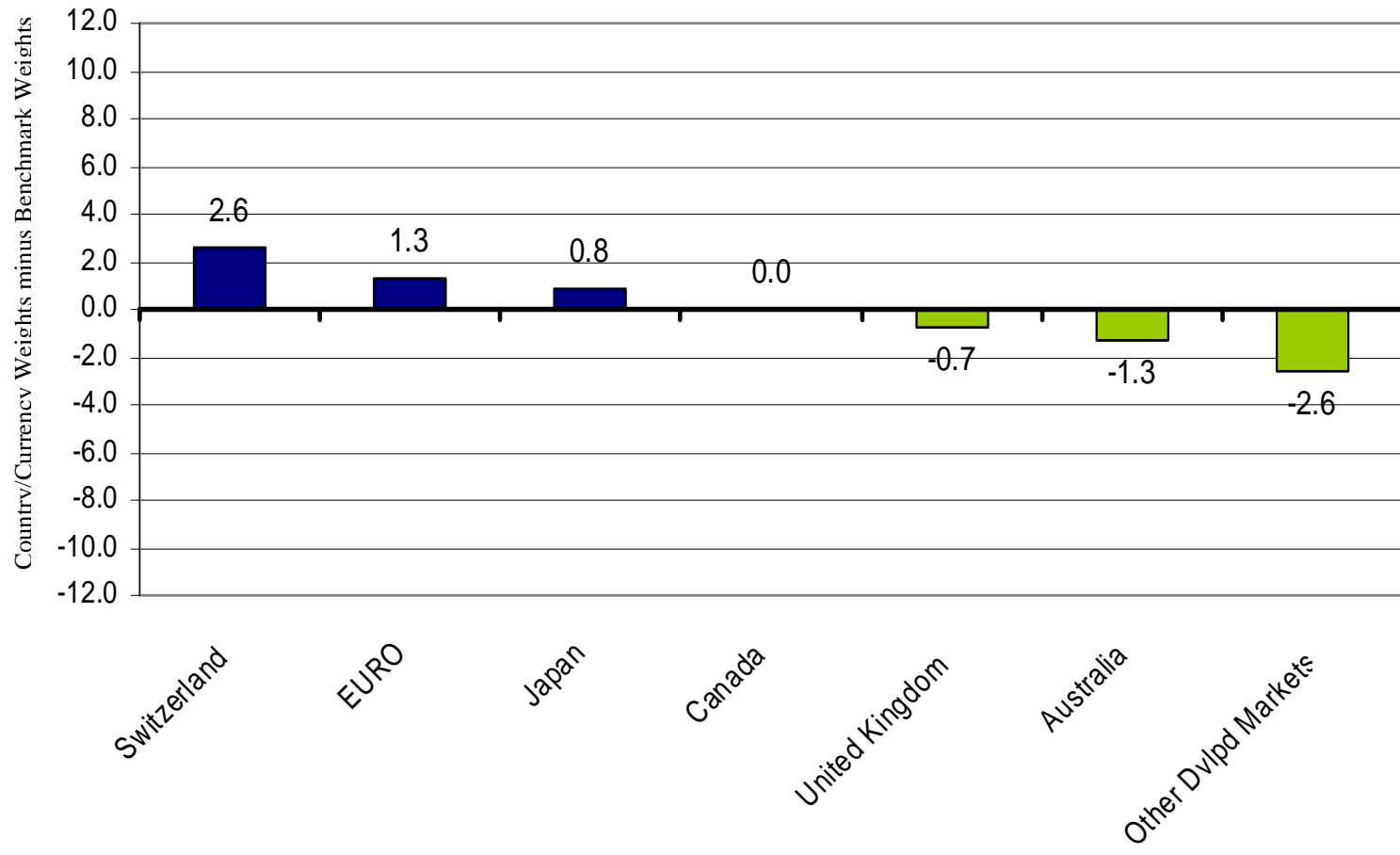
Positions: Economic Sectors

AXA Rosenberg

As of December 31, 2006



AXA-Rosenberg
Style Analysis: Country/Currency Exposure
As of December 31, 2006



Dimensional Fund Advisors

Qualitative Factors

Factors	Description
People	<ul style="list-style-type: none"> • Team approach where no one individual is solely responsible for a strategy or account. • Stable team, low turnover among investment professionals. • Research group plays a critical role in DFA's strategy and execution.
Philosophy	<ul style="list-style-type: none"> • Believe markets work: risk and return are related. Believe greater exposure to three factors- equity exposure, company size, and company price should result in a higher portfolio expected return.
Process	<ul style="list-style-type: none"> • Don't select individual stocks • Eligible securities are those in countries included in the MSCI EAFE Small Index that are also above \$25 million in market cap. • Eligible securities are identified through screens for market cap (smallest 10-15%), book-to-market (top 30%), eligibility (no regulated utilities, recent IPOs, etc.), trading (buy, hold, sell ranges) on a country-by-country basis. • Also add value through trading. • Portfolio typically holds 1,000 securities, well diversified.

Alpha Dimensional Fund Advisors 5-Year Period Ending December 31, 2006



Composite data is shown prior to August 31, 2005 (before fees).

Information Ratio

Dimensional Fund Advisors

5-Year Period Ending December 31, 2006

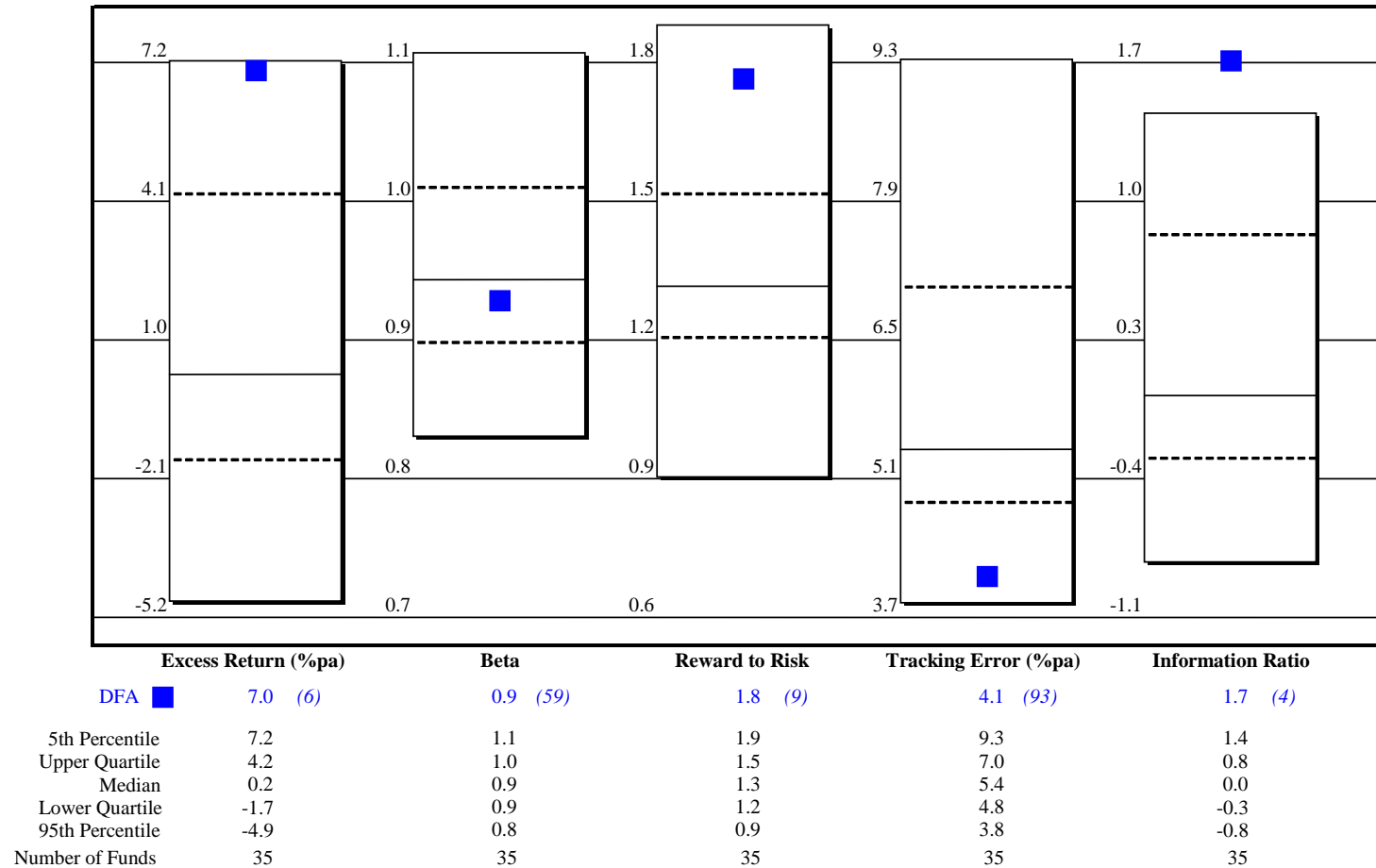


Composite data is shown prior to August 31, 2005 (before fees).

Peer Comparison with the Mercer International Equity Small Cap Universe

Dimensional Fund Advisors

5-Year Period Ending December 31, 2006

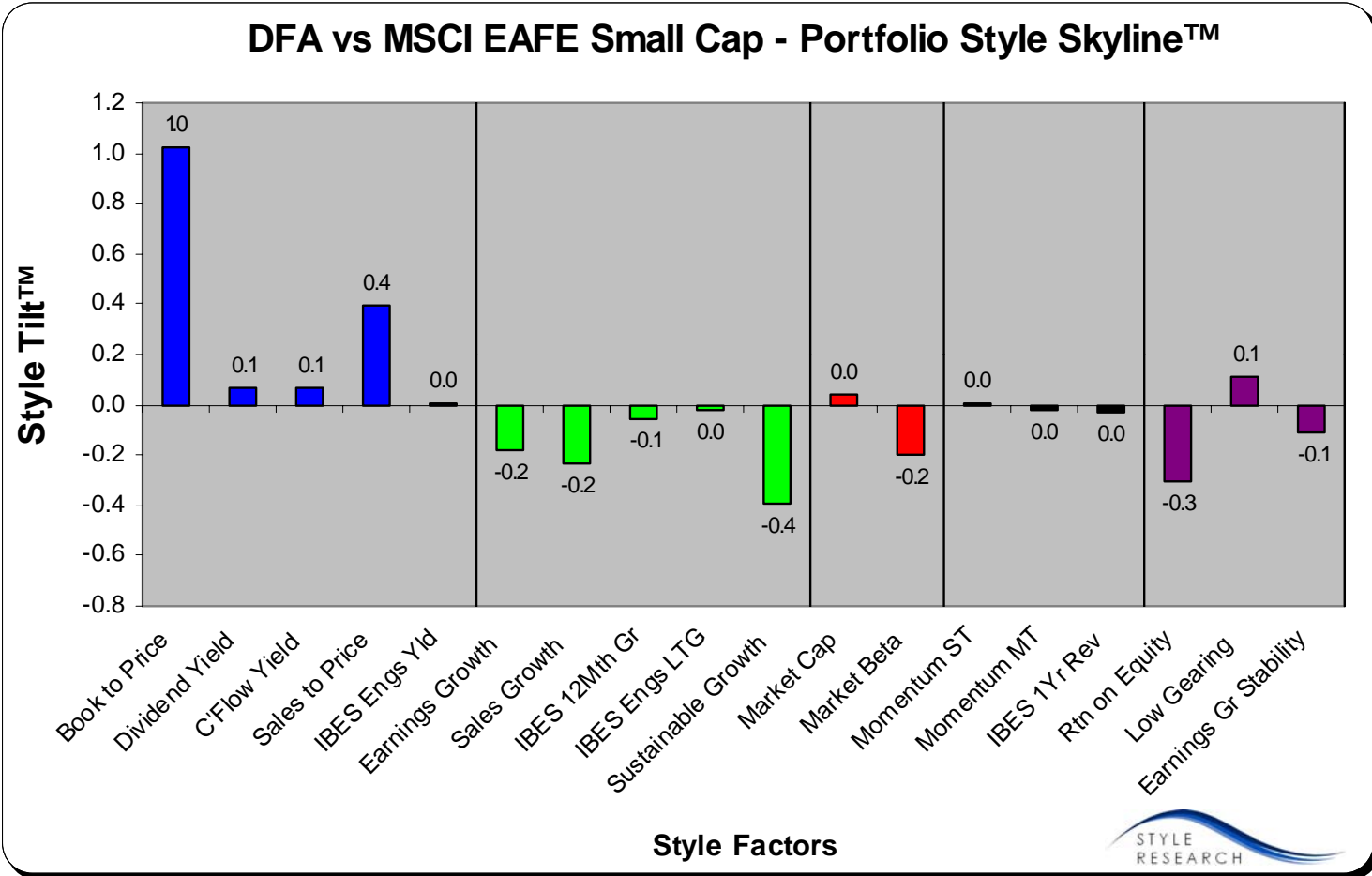


Composite data is shown prior to August 31, 2005 (before fees).

Positions: Style Analysis

Dimensional Fund Advisors

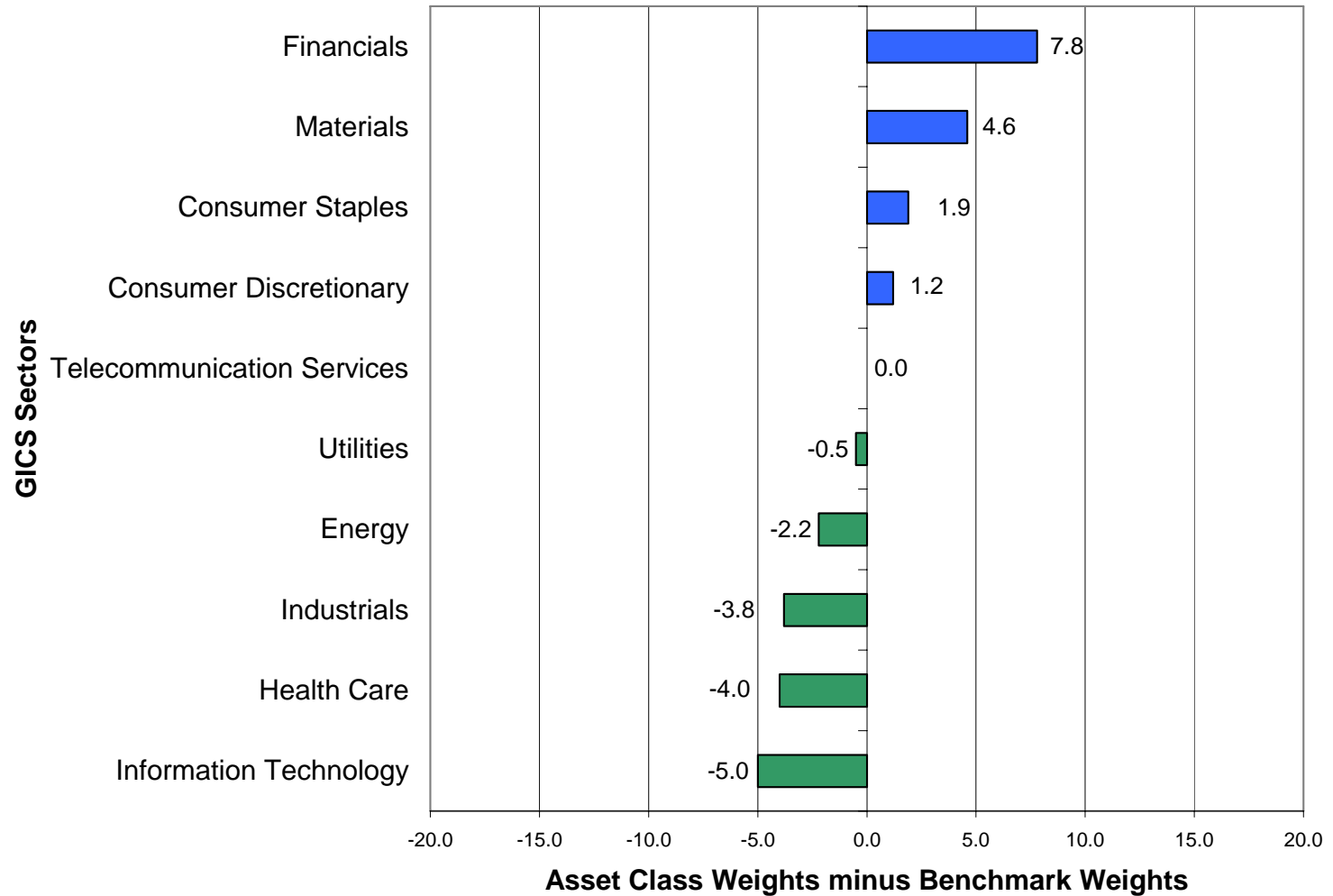
As of December 31, 2006



Positions: Economic Sectors

Dimensional Fund Advisors

As of December 31, 2006



Dimensional Fund Advisors
Style Analysis: Country/Currency Exposure
As of December 31, 2006

